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ABSTRACT

In the summer of 1972, a field experiment on intergroup behavior was conducted in Oakland, California. For the purpose of this experiment, a tuition-free 6-week summer school for black and white students of junior high school age was created. The design of the experiment compared the effectiveness of two treatments in producing "equal status" behavior in interracial groups. A second-stage evaluation ascertained whether the effects of treatment could persist over a period of 4 weeks of classroom interaction. Previous laboratory work had revealed that when white and black boys are brought together to carry out a group task, whites tend to dominate the discussion. To modify this pattern, Cohen and Roper developed a method of treating the initial expectations for competence with which white and black children enter a group experience. In this treatment, called Expectation Training, the black children become teachers of the white children in order to expose them to a clear experience of black competence. The design of the experimental summer school exposed one-half of the students to a lengthened, strengthened version of Expectation Training. The other half of the sample experienced an alternative treatment which emphasized successful learning in small, noncompetitive, interracial groups. (Author/JM)

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FINAL REPORT

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Center for Interracial Cooperation

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i/ii

TABLE OF CONTENTS

	Page
LIST OF TABLES	iv
INTRODUCTION	1
ORGANIZATION OF REPORT	3
CHAPTER	
I. THE PROBLEM OF INTERRACIAL INTERACTION DISABILITY . . .	5
II. HYPOTHESES AND DESIGN OF FIELD EXPERIMENT	14
III. DESCRIPTION OF THE CENTER: SETTING, STAFF AND STUDENTS	21
IV. PROCEDURE FOR THE INTERVENTIONS	29
V. RATIONALE AND PROCEDURE FOR THE CLASSROOM PHASE . . .	40
VI. DATA COLLECTION AND MEASUREMENT PROCEDURES	49
VII. EFFECTS OF TREATMENT--CRITERION TASK RESULTS	55
VIII. INTERPRETATION OF CRITERION TASK DATA	79
IX. SOCIAL INTERACTION IN AN EXPERIMENTAL ORGANIZATION . .	99
X. SUCCESS OF THE LEARNING CENTER: THEORETICAL ANALYSIS	137
XI. IMPLICATIONS FOR EDUCATIONAL PRACTICE IN RACIALLY MIXED SCHOOLS	148
XII. SUMMARY AND CONCLUSIONS	168
APPENDICES	
A. CODING MANUAL: STUDENT-TEACHER INTERACTION	
B. EVALUATION AND REVISION OF THE OBSERVATION CURRICULUM	
REFERENCES	

List of Tables

Table		Page
3.1	Composition of Faculty of Teachers and Aides by Race and Sex	24
3.2	Association Between SES Score and Race for each Treatment and Sex	27
7.1	Proportion of Students Able to Teach Solo or Requiring Structured Assistance for Four Tasks: Black Students, Expectation Training Condition Only	56
7.2	Kruskal-Wallis One-Way Analyses of Variance: Difference in Percentage of Acts Initiated by Group Members	64
7.3	Randomization Test for Two Independent Samples: Mean Percentages of Group Initiation for More and Less Active Blacks in Round 2 of Kill the Bull	65
7.4	Frequency of Very Inactive Initiators by Treatment Sex, and Time	67
7.5	Proportion of Black Subjects Chosen as Leader by All Subjects After Second Game: By Sex and Condition. . .	69
7.6	Comparison of Mean Rate of Initiation Across Time Holding Constant Treatment, Sex and Activity Level for Black Subjects	70
7.7	Mean Percentage of Influence for More and Less Active Member of Each Racial Pair: By Treatment, Sex and Round of Kill the Bull	72
7.8	White Students' Reactions (Male and Female) to Black Students as Teachers, Expectation Training Only	74
7.9	Black Students' Reactions (Male and Female) to Teaching White Students, Expectation Training Condition Only	76
7.10	Responses to the Four Tasks by Students in Two Treatments: By Sex.	77

Table		Page
8.1	Small Group Classroom Participation: Observed vs. Expected Mean Percentage of Initiation by Race, Sex, Treatment and Classroom	84
8.2	Large Group Discussion: Observed vs. Expected Mean Percentage of Initiation by Race, Sex, Treatment and Classroom	86
8.3	Mean Percentage Acts Initiated for More and Less Active Whites and Blacks by White-Black SES Differences in Groups	88
8.4	Mean Percentage Acts Initiated For More and Less Active Blacks and Whites by Black-White Group Age Difference	90
8.5	Number of Groups with Three Degrees of White-Black Age Differences: By Treatment and Sex	91
8.6	Mean Percentage Acts Initiated According to Race, Activity Level and Sex for Groups of Two Types of Black-White Age Differences	92
8.7	Cross-Tabulation of Rank on First Round of Criterion Task and Degree of Treatment Score: By Race . . .	95
9.1	Proportions of Students Choosing Within Their Own Races for First, Second or Third Choice of Social Power Criterion: Observed vs. Expected for Each Treatment Category	102
9.2	Probability of Receiving a High Rating on Participation in Observation and Film Curricula by Teachers: Boys vs. Girls by Treatment and Race. .	113
9.3	Proportions of Student Choosing Across Race for First, Second or Third Choice on Picnic Partner Criterion: Observed vs. Expected for each Classroom .	128
9.4	Proportions of Student Choosing Across Race for First, Second or Third Choice on Work Partner Criterion: Observed vs. Expected for Each Classroom	131

the effects will be the opposite of what policy makers desire. In more abstract terms, this phenomenon involves the diffusion of the status order of American society into new tasks and new organizational settings where there is no rational reason to expect superior white competence.

There is some evidence of the pattern of white dominance occurring in association with school integration. Seidner found that interracial fourth grade groups whose members have experienced school integration exhibit, if anything, more white dominance than interracial groups from segregated schools (1971).

In the concrete school setting, the occurrence of white dominance is further encouraged by the competitive evaluation system of school grading and by initial differences between blacks and whites in reading and math skills. Surveys reveal some unfavorable effects of desegregation probably due to invidious social comparisons taking place in the classroom. In the METCO study of the effects of busing black children into predominantly white schools, those blacks who experienced desegregation were found to have significantly lower academic self-concept and aspiration levels than control group subjects made up of siblings of the bused children (Armour, Summer, 1972). In a well-designed study of self-esteem, Rosenberg & Simmons showed that black self-esteem is definitely lower in desegregated schools than in all-black settings (1972).

We contend that complex changes in the typical school must take place in order for integration to achieve simultaneous improvement of both black achievement and intergroup relations. These two social goals, no matter how desirable, are not likely to be obtained by simply putting together blacks and whites in the same building. Intervention will be necessary to prevent initial white dominance in interracial interaction and then, the organizational and curricular structure of the school must be altered in order to insure maintenance of equal status behavior and academic improvement of blacks.

Theoretical Background

From the beginning of Cohen's series of studies of interracial interaction disability, the investigator and her associates have used a systematic theoretical framework to explain the problem of white

Center for Interracial Cooperation

INTRODUCTION

In the summer of 1972 a field experiment on inter-group behavior was conducted in Oakland, California. For the purpose of this experiment a new organization, the Center for Interracial Cooperation was created; the Center was a tuition-free six-week summer school for black and white students of junior high school age. The design of the experiment compared the effectiveness of two treatments in producing "equal status" behavior in interracial groups. A second-stage evaluation ascertained whether the effects of treatment could persist over a period of four weeks of classroom interaction. Evaluation consisted of systematic behavioral measures of participation and influence in four person interracial groups.

The study was funded first by the Office of Education and later by the National Institute of Education in a grant to three investigators at the Stanford University School of Education. The Oakland Unified School District contributed some funds and loaned us a school building for the Center. Without the gracious cooperation and firm support of the late Dr. Marcus Foster, Superintendent of the Oakland school system, the summer school could never have taken place.

Nature of the Problem

Previous laboratory work had revealed that when white and black boys are brought together to carry out a group task, whites tend to dominate the discussion. This phenomenon, repeatedly demonstrated in the controlled setting of the laboratory, has important implications for integrated education. If bringing together students of different races results in confirmation of stereotypes concerning the superior competence of the white race, the goal of improving relations between the races through school integration cannot be achieved. There is support for this contention. In a study of fourth grade children, Seidner found that in interracial groups of children who had experienced school integration, whites were, if anything, more dominant than they were in

groups of children who had only experienced segregated schools (Seidner, 1971).

Design of Treatments

To modify this pattern of white dominance, Cohen and Roper developed a method of treating the initial expectations for competence with which white and black children enter a group experience. In this treatment, called Expectation Training, the black children become teachers of the white children in order to expose them to a clear experience of black competence.

The design of the experimental summer school exposed one-half of the students to a lengthened, strengthened version of Expectation Training, as developed in the laboratory by Cohen and Roper. The other half of the sample experienced an alternative treatment, called Learning Centers which emphasized successful learning in small, non-competitive interracial groups.

Following an initial period of treatment, students who had experienced Expectation Training and Learning Centers were exposed to several weeks of cooperative curriculum in classrooms. These classrooms were restructured to produce a high level of non-competitive participation and interracial interaction.

Evaluation of the effects of treatment took place just after the initial treatment period and following the classroom phase at the end of the summer school experience. Small interracial groups were given a game to play; their behavior was systematically recorded and scored for activity and influence. As in past studies using this criterion task, "equal status behavior" was defined as a pattern of results where there is no association between color of the skin and relative contribution to the task. In addition to this criterion task, a number of measures were taken of the ongoing interaction in the classrooms; students also responded to interviews and questionnaires.

ORGANIZATION OF REPORT

The first chapter describes the problems of bringing together individuals of different social status in a situation such as the integrated school. Following the description of these problems is the presentation of the theoretical framework used in constructing laboratory and field versions of Expectation Training. This theoretical framework, the Theory of Status Characteristics and Expectation States, offers an explanation for the pattern of white dominance.

In the second chapter are the specific objectives of the field experiment and the explication of the design. Also included are the specific hypotheses tested by the design.

The third chapter contains description of the personnel and setting of the Center for Interracial Cooperation; its organization was unique and was felt to have had a major impact on the results.

Specific treatment procedures are in the fourth chapter; methods used in Expectation Training and the alternative treatment, Learning Centers, are described.

The fifth chapter explains how cooperative learning settings in the Classroom Phase were constructed and implemented. Included is an explanation for restructuring of the social organization of the classrooms. The objectives and a summary of the activities of the two cooperative curricula, the Film Curriculum and the Observation Curriculum, are included.

Following the treatment and classroom procedures, we describe the process of evaluation and measurement (Chapter VI). The basic measure of interracial behavior used in this and previous studies by the investigators is presented. Also described are the various supportive measures derived from interviews, questionnaires, and observations of classroom participation.

Chapters VII and VIII give the results and interpretation for the systematic criterion task data. In these chapters the results for the study's hypotheses are presented and interpreted.

Chapter IX discusses the less systematic data collected on the classrooms, both interaction studies and general observations made by

students, teachers and classroom observers. These data are analyzed in order to supplement the interpretations made of the systematic data in the previous chapter. In addition this chapter examines the character of interracial relations at the Center as expressed in sociometric choices, movies made by the students, and the reports of teachers, staff and students. Included are recommendations for improved small group process, modified authority structure and special assistance for improved response to interracial confrontations.

The tenth chapter is a theoretical analysis of the reasons for the success of the Learning Center. The potential of the cooperative curriculum as a treatment, by itself is discussed.

The final two chapters contain implications and recommendations. Chapter XI specifically discusses the relevance of this work to governmental policy on equality of opportunity. The closing chapter discusses possible directions for further research and development. Also in the final chapter are a summary, conclusions, and recommendations.

CHAPTER I

THE PROBLEM OF INTERRACIAL INTERACTION DISABILITY

Simply bringing whites and blacks together in small groups on new tasks without intervention tends to produce a pattern of white dominance. Katz originally demonstrated this phenomenon on black and white college students in the laboratory study. Whites were more active in biracial teams than blacks even though the team members were matched on ability at the tasks and were so informed (Katz 1958, 1960). In 1968, Cohen repeated this demonstration with nineteen groups of junior high school boys; on a task new to all members, the whites were much more likely than the blacks to be the most active and influential participants in making group decisions. Also, blacks were much more likely than whites to be the least active member of the group (1968). Whites had the highest initiation rate in fourteen out of nineteen groups; blacks had the lowest initiation rate in thirteen groups. Cohen dubbed this phenomenon "interracial interaction disability" because there was no rational reason to expect the whites to have more to contribute than the blacks on this task; furthermore, the existence of white dominance means that the group is unable to benefit from contributions of black members. In this early study the two black and two white members were matched on socio-economic status and attitude toward school, so the only possible basis for assuming a difference in competence was skin color; members did not know each other prior to the game.

Relationship to School Integration

White dominance in small interracial groups is pertinent to the evaluation of school integration. If bringing whites and blacks together in a school results in a pattern of white dominance, the social goal of improving interracial relations through school integration will not be achieved. There is a stereotype widely held among whites, that blacks have less ability in many cognitive situations. If this stereotype is reinforced by inter-group contact in an integrated situation,

dominance and to infer propositions about how to change the pattern. The Theory of Status Characteristics and Expectation States developed by Berger, Cohen and Zelditch, sociologists at Stanford University, has provided a powerful and useful framework throughout the program of applied research reported in this chapter (1966, 1972).

Theoretically, the imbalance in interracial relations occurs because of general expectations for superior competence of the white race held by many members of both races. These expectations, in turn, are a product of the status ranking in the society at large; they are capable of triggering a self-fulfilling prophecy in a new situation where there is no rational reason to expect members of one race to be more competent than members of the other race. Expectations for superior ability on the part of whites indicate the "implicit and unconscious racism" of American society cited by contemporary black thinkers. Because expectations based on status are part of cultural history, however, they are subject to change over time as the status ranking of a given group

Status Characteristic Theory

For the purposes of this report it is necessary to point out a few features of Status Characteristic Theory. First, race is only one of a number of status characteristics capable of triggering self-fulfilling prophecies whereby differential expectations for competence on a new task lead to differential performance on that task. There is nothing inherent in either race leading to the pattern of white domination. Other status characteristics such as sex, age or military rank will lead to similar results under similar task conditions (Hall, Deal, Cohen & Freese, Berger, Cohen and Zelditch, 1972).

Secondly, the explanation for this interracial behavior lies in the activation of general expectations for competence and incompetence, attached by a set of cultural beliefs to people of high and low status. In the technical terms used by the theory, black and white are low and high values of the diffuse status characteristic of race. The status characteristic is termed "diffuse" because of the general expectations which are attached to it, which have the power to spread into new situations.

General expectations, when they become activated and relevant to a new task, produce a self-fulfilling prophecy within group interaction; high status group members expect lower status group members to participate at a lower level in quality and quantity; the lower status group member accepts the other's evaluation of him as less capable and therefore fulfills expectations of inferiority, thus proving to himself and to the high status group members that he cannot participate on a task in a truly equal manner. As a consequence of the activation of general expectations, high status group members are more active and influential in group interaction. Theoretically, the prestige and power order of the small groups has come to resemble the status order of the outer society even though there is no rational reason to expect the high status members (whites) to be more competent than low status members (blacks) on the new task.

A third critical point to note about these general expectations is that they are not assumed to be conscious and, therefore, a researcher could not reliably assess a subject's expectations for either his competence or for the competence of others on a questionnaire. This means that studies of the way blacks and whites behave with each other in task groups should not be seen as comparable with studies of interracial attitudes as expressed on questionnaires. Whites who display verbal attitudes of tolerance of blacks may still be quite dominant in interracial task groups.

Fourthly, it is not assumed that these self-fulfilling prophecies occur in all interracial groups under all conditions. Expectation Theory specifies one set of conditions under which the activation of general expectations will occur and those expectations will become relevant to a new task. These conditions are:

1. The task must be collective.
2. Participants must perceive that success or failure at the task is dependent on level of competence at this task.
3. There must be no specific cultural belief about the ability of high or low status members at this particular task.

4. Members must have no previous knowledge of each other from which to form a basis for expectations for skill at this particular task.
5. The group must be involved in the task, so that success or failure matters to them.
6. The state of the status characteristics is the only basis for differentiation in the group.

Treating Expectations in the Laboratory

The first attempt to modify white dominance in group interaction was Assertion Training developed by Katz (1962). Assertion Training consisted in giving the blacks on biracial teams of college students better information than the whites. Katz did not utilize expectations as a theoretical basis for understanding the problem or for proposing a remedy. Assertion Training proved to be effective in removing the dominant behavior of whites although there was some evidence of white hostility toward their black teammates as an undesirable side effect of training.

Measuring Interracial Interaction Disability

The first study of interracial interaction disability by Cohen served to identify the pattern of white dominance as an instance of the operation of expectations based on status. Hypotheses derived from Status Characteristic Theory were strongly supported by the data on group interaction on a specially created criterion task. This criterion task, a game of strategy called Kill the Bull, has been used throughout the series of studies conducted by Cohen and her associates. The task requires a four-person group to make repeated decisions about the way to proceed on a game board containing multiple paths to reach the goal. The group must reach the goal in fourteen turns or less and achieve the highest score possible. The total score is the sum of the values of the squares where the playing piece lands. The roll of a die dictates how many squares the group may advance in each turn.

This criterion task was specifically constructed to meet scope conditions required by the theoretical framework of Status Expectations

and Expectation States. It was highly involving, was associated with no specific cultural beliefs about ability, was collective and interdependent; finally, participants perceived that success or failure was dependent on the level of competence in playing the game. This same criterion task was used in the Center for Interracial Cooperation as the principal tool for evaluation of effectiveness of the intervention.

Expectation Training I

Expectations based on race proved to be difficult to change in the laboratory setting. In the initial attempt to prevent racial expectations from infecting the criterion task, we were unable to modify the pattern of white dominance in any way. In Expectation Training I blacks were assigned superior competence on a training task before group members had any chance to make evaluation of each other. If we had been successful in this assignment of differential competence on the training task, blacks would have entered the criterion task, knowing that they were defined as highly competent and furthermore, knowing that the whites perceived them as highly competent. This, hopefully, would prevent activation of diffuse expectations for competence based on race.

Despite observations of success in producing superior black competence on the training task the group interaction data revealed a pattern of white dominance identical with that found in untreated groups. Expectations were not as easy to modify as had been implied by Rosenthal & Jacobson in experiments concerning the change of teacher expectations for student performance.

The first successful intervention was carried out by Lohman who used a role modeling film of competent black behavior on Kill the Bull to change the behavior of black subjects on that same criterion task. This intervention made them much more willing to offer suggestions and argue for their point of view with white subjects (Lohman, 1970). We have continued to use role modeling to promote rapid production of competent behavior in black subjects.

Expectation Training II

The second attempt at Expectation Training was successful in demonstrating that the effects of special training tasks were capable of

altering expectations for the criterion task of Kill the Bull (Cohen & Roper, 1972). This second version of Expectation Training was much stronger than the first; the black student became a teacher of the white student on the training task which involved the construction of a two transistor radio. The black student demonstrated competence on two related tasks (1) the ability to build a two transistor radio and (2) the ability to teach someone else how to build one. Furthermore, we used role modeling in the training of black students to become self-confident teachers as well as strong reinforcement procedures.

The black students arrived an hour in advance of the white students. After they were taught how to build the radio by a young black instructor and how to instruct a potential student, a videotape was made of each of the two black group members, competently assembling the set and explaining the process. This videotape was shown to the four-person interracial group upon the arrival of the two whites. The Host Experimenter, a Filipino, pointed out how well the black members were explaining, how nicely they were speaking up and how self-confident they were. Following this demonstration of black competence, each white member was taught by a black member how to build the radio. During the teaching, further videotapes were made. These were shown to the whole group and black competence and self-confidence was once again reinforced. After all this had taken place, the interracial group sat down together for the criterion task of Kill the Bull.

A critical advance in theoretical research in Status Characteristic Theory was occurring simultaneously with the running of this experiment. Freese and Cohen demonstrated that if the low status person is assigned a value of high competence on two related skills while the high status person is told he is less competent on these skills, then the effects of status are not visible; only the effects of skill on the two related tasks account for the data on a third criterion task. Theoretically, these two related skills are termed a General Performance Characteristic.

The work of Freese and Cohen enabled us to conceptualize very clearly the basic principle of Expectation Training II. By having the black student attain competence on both building the radio and teaching another to build the radio, we had created a General Performance

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Characteristic and had assigned a high value to the two black group members. In order to fit the theoretical definition of a General Performance Characteristic there must be at least two abilities and they must imply each other. Expectation Training can use a wide variety of tasks. In the Interracial Center we changed the content of the training tasks from Expectation Training II, but the basic principle of assignment of high competence to the low status group members on related performances was carefully retained. In addition, we repeated the reinforcement procedures in order to insure that the assignment of "competence" to the blacks was really believed by all concerned.

A critical comparison condition in the experiment "Expectation Training II," was called Black Expectations Only. Black subjects in this condition did not teach white subjects how to build a radio. After they had reached criterion level of competence on the two skills of the training procedure, they taught a black administrator how to build the radio. They received just as much reward and reinforcement as the blacks in the other conditions but the whites were unaware of black competence. The white only entered the scene to participate with the blacks on the game of Kill the Bull. That is, their expectations for black competence were in no way treated. The results of this condition were just as white-dominated as results from untreated groups. Thus, it is necessary to treat the expectations of both blacks and whites in order to achieve equal status behavior. Success and reinforcement for blacks only are not sufficient. This result was interpreted as analagous to the failure of compensatory education programs in which low status groups are given a success experience, but the experience has no carry over to the racially integrated situation.

R. W. Friedrichs states the implications of this experiment even more strongly in Phi Delta Kappan

its [the Cohen and Roper experiment] conclusion is crystal clear: Equality of achievement cannot be reached among blacks and whites simply by raising the proficiency and morale of blacks alone. Only when whites are led to conclude that blacks are as able as they, do those whites permit a social climate to exist in which equality of achievement is possible.

(Phi Delta Kappan, Vol. LV, No. 4, 1973, p. 277)

CHAPTER II

HYPOTHESES AND DESIGN OF FIELD EXPERIMENT

Black and white populations are separated by cultural, linguistic and socio-economic differences. If urban society is not to continue polarizing along lines of fear and mistrust, members of the two races must learn to work together on an equal status basis and to evaluate each other as individuals rather than as members of races.

This is a policy issue underlying the school integration issue, quite apart from the question of improving black achievement.

Focus on Interracial Relations

If we could demonstrate some success in producing equal status interaction in a summer school, we might develop a workable model with policy potential. The treatment and indeed, the school itself could be duplicated in those school districts wishing to improve interracial cooperation through a specific set of treatments and curricular experiences.

There are few examples in the literature of educational interventions based on theory and laboratory experimentation which move through a process of development until a practicable model has been achieved. We were forced, therefore, to take calculated risks and to make broad guesses as to the best way to proceed.

It was necessary to achieve clarity on just which aspects of the desegregation process our work would address. Although our long term goal was the redesign of the integrated school setting, we were not yet ready to tackle the issue of black achievement. Expectation Training II had been effective in producing balanced interracial interaction in a controlled cooperative laboratory setting over a few hours. But schools are not tightly controlled laboratories; they are typically competitive and involve extensive and relatively uncontrolled student interaction. They are often dominated by whites in administrative and teaching positions. Furthermore, schools typically rely on a few basic academic

skills throughout the curriculum--skills on which black and white sixth to eighth graders are likely to have differential competence.

It was unlikely that Expectation Training taken out of the laboratory and dropped into a typical urban school context would show any lasting effect. Even if we were successful in treating expectations based purely on racial status, competitive academic classrooms would have the effect of producing a rank order based on perceived academic ability. This new rank order would then take the place of the earlier racial status order we had just treated. Equal status behavior, observable directly after treatment, would probably fade out as black and white students with little initial common bond, continued to evaluate each other's competence on typical academic tasks. Status in the academic rank order would trigger self-fulfilling prophecies resulting in patterns of white dominance.

Thus we made the decision to focus on the production and maintenance of equal status behavior in a radically altered school setting. The alterations were all made in order to prevent the formation of a status order based on race. We designed a special cooperative classroom setting in order to test whether or not the effects of Expectation Training could be maintained as interracial groups continued to work together on a variety of tasks.

The design of the cooperative classroom was related to the long-term goal of redesign of integrated school settings. It is our position that the treatment of expectations based on status is a necessary but not a sufficient condition for the improvement of black achievement in integrated schools. It is also our contention that the accomplishment of the twin goals of equal status behavior and improved black achievement will necessitate the redesign of conventional classroom social structure.

Operating the Interracial Center allowed us to accomplish two major purposes:

1. We could compare Expectation Training to an Alternative Treatment in a school-like organizational context as to its strength in producing equal status behavior capable of persisting over several weeks of classroom interaction.

2. We could develop a prototype of a cooperative classroom social structure useful for the eventual redesign of integrated settings.

Without the academic component, the treatment combined with the cooperative curricula, if successful, would comprise a model for school districts specifically wishing to teach interracial cooperation.

Hypotheses

As a treatment moves from the laboratory to a field setting, the essential question is one of its strength and durability when carried out en masse and when subjects are allowed to interact in a relatively uncontrolled manner. Using the same theoretical principles as Expectation Training II, we created a longer, stronger version of the treatment. Following treatment, students experienced several weeks of cooperative classrooms, providing an organizational context in which to test the durability of treatment effects. We wanted to answer two central questions:

1. Would Expectation Training be effective on a larger scale in a school-like context?
2. Would the desired interracial behavior persist over an extended period of social interaction?

In order to gauge the effectiveness of Expectation Training, we contrasted it to an alternative treatment called Learning Centers. In order to answer the second question of durability of treatment effects, we constructed a three-week Classroom Phase where children in both experimental conditions could undergo identical post-treatment experiences.

The specific hypotheses tested in this experiment were as follows:

1. Groups of students who receive Expectation Training will be more likely to demonstrate equal status behavior immediately post-treatment and following the classroom phase than groups of student receiving the alternative treatment, Learning Centers.
2. Among black students who receive Expectation Training, there should be no significant decrease in activity rates on the criterion task between the measurement following treatment and the measurement subsequent to the classroom experience; likewise there should be no significant increase in activity rates for whites on the criterion task between the two measurements.

Overall Design

Figure I presents the overall design of the field experiment. The summer school program was in session for seven weeks. The first week was a training period for black students in Expectation Training. During this time they attained competence on four tasks and learned how to teach these tasks to someone else. Their instructors were black college students. The tasks dealt with math, Malay language and culture, construction of a radio transmitter, and spatial problem-solving. The other students were not present during this first week.

The actual treatments, or interventions as we shall call them, took place during the second week. In Expectation Training, each black student taught four different white students the four different tasks. Lessons took place each morning during the week under the general supervision of the black college students. As in the laboratory version of Expectation Training, black and white students saw videotapes demonstrating black competence at one of the tasks and videotapes demonstrating black competence in teaching one of the tasks. Black subjects were also reinforced for "speaking up," "being self-confident" and "explaining ideas" as in the laboratory treatment. The relevance of the criterion task to these behaviors was explained to the black students prior to measurement of interracial interaction.

In the Learning Center intervention, entering black and white students were immediately grouped into four-person interracial groups. They learned the same tasks as students in Expectation Training, but they were instructed by an adult, a member of an interracial team of teachers and teacher aides. There were four Learning Centers in each classroom, with an adult teaching one of the four tasks at each Center. Interracial groups with stable membership were rotated through the four Centers each morning of the Intervention Week. Instruction utilized cooperative principles and was carried out in such a way that each student was successful in learning each of the tasks, was encouraged to interact in a helpful manner with other members of the groups and received a lot of positive reinforcement and attention from the adult.

The third week was set aside for measurement of the effects of the treatments on the standard criterion task, Kill the Bull. Students were

placed into four-person interracial groups, two black and two white. They were taken before video cameras and instructed in the playing of the game. Following the game each student was interviewed by an adult of his/her own race.

During the fourth, fifth and sixth weeks, students were placed in classrooms segregated by sex and by the type of intervention they had experienced. They studied two curricula: one on Scientific Observation and the other on Film-Making. Neither curriculum required reading or writing. Both featured active group work for small interracial groups. Evaluation was based on group rather than individual products. There was a minimum of competition within or between groups of students. Each curriculum was taught by an interracial team of teachers and teacher aides. Thus each classroom experienced two different teams within each weekday session, one for Observation and one for Film-Making.

During the final week of the summer school criterion measurement on Kill the Bull was again taken. For this purpose, new biracial groups were composed. Blacks and whites were selected from different classrooms within the same experimental condition. Final interviews were also administered.

Rationale for the Learning Center

It would have been highly desirable to have a non-treatment control group. However, it was obvious from the beginning that recruitment problems precluded a sufficiently large sample for this purpose. We decided therefore to utilize the available subjects in a manner that would yield a maximum amount of information about possible useful interventions. The Learning Centers treatment was non-competitive, with a high degree of individual success and reinforcement for all students during the week of intervention. Furthermore, the individualized nature of instruction precluded any kind of status struggle taking place in the first week.

We might also have contrasted Expectation Training to a conventional academic summer school program, but we felt that this would be setting up a "straw man." Rather, we chose to contrast Expectation Training, a direct assault on expectations for black competence held by blacks and whites with an educational intervention designed to help children develop

a non-stereotypical and complex view of each other's abilities. We chose to rely on the sample of groups run in previous studies for our baseline data on untreated black-white interaction on the criterion tasks.

Inclusion of Girls in the Design

Previous studies had all been with boys; and we had not designed Expectation Training tasks with girls in mind. Nevertheless, parents were very anxious that girls be included in the study. They wanted to know why we were discriminatory in our selection procedures. Because of this pressure and because of a shortage of volunteers, we were forced to include sex as a variable in the design. Figure 1 gives the figures by race and treatment conditions for male and female students. We maintained sex segregation in the Classroom Phase and during the Learning Center Intervention because sex difference constitutes another status variable; and we did not want to confound the study of interracial interaction with the study of cross-sex interaction.

FIGURE 1

Overall Design of the Center for Interracial Cooperation

Participants		
BLACK n=	44 boys	
	37 girls	
WHITE n=	36 boys	
	28 girls	

	<u>EXPECTATION TRAINING</u> (treatment)	<u>LEARNING CENTER</u> (comparison)
Week 1	black tutorial phase (18 boys; 17 girls)	not present
Week 2	expectation training (boys - 13 bl; 13 wh) (girls- 17 bl; 17 wh)	learning center (boys - 26 bl; 18 wh) (girls- 20 bl; 11 wh)
Week 3	criterion measure (Kill the Bull, interviews)	criterion measure (Kill the Bull, interviews)
Week 4-6	classroom phase (observation, film making)	classroom phase (observation, film making)
Week 7	criterion measure (Kill the Bull, interviews)	criterion measure (Kill the Bull, interviews)

CHAPTER III

DESCRIPTION OF THE CENTER: SETTING, STAFF AND STUDENTS

The decision was made to carry out the study in Oakland. Dr. Marcus Foster, Superintendent of the Oakland Unified School District, showed interest in the project, feeling that it had relevance to Oakland's school population, which includes large numbers of blacks and other minority groups. He offered us the use of a school building for the project.

Site Selection

Originally we had planned to select a site where we could find black and white populations of similar socioeconomic backgrounds. However, we became persuaded that we could make a more powerful test of our treatment if we rejected it into a natural situation where interracial relations had become inflamed and problematic for the school system. We were approached by Regional Superintendent Leo Croce who was most concerned about Claremont Junior High School, an integrated school where parents and children were highly dissatisfied with the degree of interracial conflict and with the lack of learning. Claremont Junior High is a school containing 65% black and 35% white students which draws from rather segregated elementary schools on either side of a "Mason-Dixon" line right at the site of the school. On one side is an upper status, urban neighborhood close to the Berkeley border. On the other side of the junior high school is a working-class area, predominantly black in population and made up of small homes. These are on a network of streets leading off major arteries in Oakland, close to a large freeway interchange.

Superintendent Croce felt that our attempted treatment was an ideal introduction to the junior high school for children coming from largely segregated elementary schools. He envisioned what might some day be a permanent feature of the school system, a new type of curriculum experience specifically designed to prepare children for the racially integrated situation. Furthermore, he was understandably

anxious to demonstrate to the parents of the area that the school was very concerned about interracial conflict at Claremont and anxious to do something about it. He therefore offered to pay some of our costs if we were to locate the school at Claremont.

Claremont Junior High as a Physical Site

The building was an older one with dark halls and plainly furnished rooms. Its principal advantage was its separate wings, which allowed us to plan for separate entrances and exits and classroom locations for the children in the two treatment conditions. During the first week of school the teachers and children worked to beautify the classrooms with pictures and decorations, most of which dealt with the themes of interracial relations.

Staffing Patterns

Many integrated schools and school systems are dominated by whites in positions of superior power and authority. We reasoned that if we wished to foster equal status behavior on the part of students of different races, power and authority would have to be shared equally between black and white adult personnel.

Thus, the staffing had two critical and unusual features:

1. Membership in positions of superior administrative standing such as director, research administrator, and classroom team leader was divided equally, insofar as possible, between white and black.
2. The students had many opportunities to observe black and white adults working closely and harmoniously together.

The Directors

Co-Directors of the school were Mrs. Dorothy Gebhard, a white principal of a predominantly white elementary school and Dr. John Favors, a black principal of a predominately black elementary school in Oakland. Both directors were involved from the very beginning of the recruitment of students. Success in recruiting students was definitely due to the apparent trust parents placed in these two principals. Dr. Favors directed the interviewing and selection of teachers and aides from the pool of applicants. These two capable and enthusiastic

administrators worked out an excellent division of labor. Mrs. Gebhard worked on organizational management, seeing that supervision of the students was adequate when they were outside the classrooms and overseeing the administrative work of the school. Dr. Favors was a human relations and community liaison specialist. Whenever problems arose with unhappy children in the classroom, he was available to counsel and intervene. He also worked with parents who were anxious or upset about anything happening to their children at the school.

Research Administrators

Dr. Mary Wilcox (an elementary school principal) served as professional leader of the teachers, translating demands of the research design and the curriculum developers into guides and instructions for the teaching staff. Mr. Robert Newby was in charge of the measurement and collection of data at the school. This pair of research administrators was also white and black.

Recruitment of Teachers

Notices of the openings on the summer school staff were sent out to Oakland teachers and aides. A large number of applicants were interviewed by Drs. Favors and Wilcox. Selections were made on the following bases: preference for group work in classrooms, experience and ease with interracial school populations, and a willingness to work under tight control from the research staff. In addition to these criteria, it was necessary to work out racially balanced teaching teams with the racial group members distributed across both teacher and teacher aide categories. We also tried to have an even number of men and women on the teaching staff. We did not attempt to recruit the most highly skilled teachers we could find. We wanted to work with a more typical cross-section of Oakland teachers so that any success we had would not necessarily be attributed to the skill of the teachers. Many of the teacher aides recruited had not had previous classroom experience. Some aides and teachers were chosen because of previous work with film curricula.

The final composition of the teaching staff was as follows (see Table 3.2):

Table 3.1

COMPOSITION OF FACULTY OF TEACHERS AND AIDES BY RACE AND SEX

<u>Rooms</u>	<u>Teams*</u>	<u>Race and Sex of Teachers</u>	<u>Race and Sex of Aides</u>
Male Tutorial	A	1 Black Male	1 White Male
	B	1 White Male	1 Black Female
Female Tutorial	A	1 White Male	1 White Female
	B	1 White Female 1 White Male	1 Black Male

Male Learning Center	A	1 Black Female 1 White Male	1 White Female
	B	1 White Male	1 White Female 1 Black Female
Female Learning Center	A	1 Black Male	1 White Female
	B	1 Black Female	1 White Female

* Each team of teachers taught Classes A and B for one period during the morning.

Recruitment of the Tutors

The research design called for college-age black tutors who would teach the four tasks to the black students in the Expectation Training treatment. Tutors would work with the black students for the first week of school, teaching them the content of the tasks and how to teach these tasks to someone else. They would also supervise the teaching process during Expectation Training and would serve as the required adults in the classroom.

Nineteen black young people were recruited; the bulk of them were from St. Mary's College where they were enrolled in a teacher training program. They themselves underwent a week of instruction in the Intervention Tasks.

Each tutor learned one of the tasks and became a member of a team of four tutors, each specializing in one of the four tasks. A four-member team of tutors was responsible for eight children. It was their job to see that by the end of the week of training all eight children were as close to criterion performance as possible. They were also instructed in how to reinforce the children for self-confident behavior, for speaking up, and for explaining their ideas.

After the Intervention, the tutors were employed in several different roles. Some became part of the research staff and learned to do systematic scoring of classroom group activity. Others became assistants to the teaching teams in the classrooms; there they played a most important role because the black children were strongly attracted to these college-age tutors. They were often called upon by the teaching staff to deal with emotional problems because of their superior ability to relate to the children.

School Librarian

The school contained a library which was utilized to good advantage. A school librarian was employed; she established an excellent multicultural collection of readings and film strips. When children had finished with their tasks elsewhere they were free to come to the library to read, chat with the librarian, see the film strips or play chess and checkers. There was intensive use of the library facility;

many books were taken out during the summer school session. The librarian encouraged the students, regardless of their reading skills, to make use of the collection.

The Students

The design called for equal numbers of black and white boys randomly assigned to each treatment. Due to difficulties in recruitment and parental pressure we were forced to include separate classrooms for girls and also found ourselves short of the planned number of white subjects. Assignment to condition was random during the first stage of the selection process, but as we began to experience difficulties in recruiting whites, we assigned whites to Expectation Training first in order to achieve a requisite size sample at least in that condition.

Recruitment of Students

A booklet describing the free summer school program was prepared. This booklet was sent home with children from nearby Oakland elementary and junior high schools. Originally, the recruitment drive was aimed only at boys. Very quickly, we discovered that parents were unhappy at our "discrimination" against girls. This was an issue raised in the discussion of the project at the School Board. Board members were concerned about any discrimination against other ethnic groups and girls.

Recruitment of white students presented a serious problem. Many white parents came to the Parents Presentation where we described and demonstrated the curricula. They showed considerable interest, but were unwilling to make a firm six-week commitment for the students' attendance. Fewer applications were received than we had hoped for. Therefore additional and more vigorous recruitment efforts were made employing ads in local newspapers and telephone calls to parents from the principals of the participating elementary schools.

At the beginning of June it became apparent that because of cuts in the budget from the Office of Education and because of pressures and recruitment problems, we would have to make changes in the initial plan. First, we cut the projected size of the school population from 240 to around 160. Second, we decided to include girls in the experimental design. We received many applications from black girls; the community

was deeply concerned that they be included in the study. The decision to include girls was made with misgivings because we had not worked with them before and felt that the treatment might affect them differently than boys. :

We continued to experience difficulties in recruitment up to the last moment. Most difficult was the recruitment of white girls. The staff felt that white parents were somewhat fearful and reluctant to allow their daughters to participate; we were experiencing some of the problems which communities attempting integration experience.

Student Composition

As applications from white girls came in, they were assigned first to Expectation Training so we could be sure of having racially balanced classrooms for girls in that treatment. As the school got underway the first week, the Learning Center Female Classrooms were badly skewed toward black membership. In an intensive drive, Directors Favors and Gebhart called parents from a wider geographical area and were able to recruit more whites. Some of these late recruits were apparently not committed to a six-week program and were later to drop out because the family planned a vacation.

The final school population had the following distribution of students of differing racial and sex groups in the two treatments, Expectation Training and Learning Centers. Student ages ranged from 10 to 13 years; 78 students were 11 or 12 years old.

Racial Composition of Summer School

		Race		
Treatment	Sex	Black	White	Oriental
Expectation Training	Boys	17	17	
	Girls	17	17	
Learning Centers	Boys	28	15	3
	Girls	20	9	2
		82	58	5

Total 145

This is in spite of recruitment difficulties; classrooms in the Expectation Training condition were racially balanced. In the Learning Centers, attendance was typically imbalanced in each classroom in favor of black students by a two to one ratio.

An overall SES score was constructed by adding an index value for mother's education, mother's occupation, father's education and father's occupation. The index for education had a range of six points; the scale for occupation ranged from 0 through 6.¹ The overall score ranged from 2-22. This range was arbitrarily divided into four levels: low (2-6); medium low (7-11); medium high (12-16); and high (17-22).

In order to test whether or not a relationship between SES and race is obtained, chi-square tests were run for each sex for each condition. The results, shown in Table 3.2 yield a statistically significant association (.01 level) for both female groups and the male Expectation Training group; differences in Male Learning Centers were significant at the .10 level. These tests were applied to the sample as a whole which includes more subjects than actually played the criterion task game.

Table 3.2

Association between SES Score and Race for each Treatment and Sex

Treatment	Sex	Race	SES Score				Total	p
			2-6	7-11	12-16	17-22		
Expectation Training	Male	Black	7	8	3	1	19	<.01
		White	1	3	8	5	18	
	Female	Black	5	4	8	0	17	<.01
		White	3	3	5	6	17	
Learning Center	Male	Black	5	13	5	3	20	<.10
		White	2	1	5	10	18	
	Female	Black	2	9	9	0	20	<.01
		White	0	0	7	4	11	

¹ If the mother or father's data were missing or the parent was not in the home a score of "0" was assigned. A score of "1" was assigned if the parent were unemployed.

CHAPTER IV

PROCEDURE FOR THE INTERVENTIONS

Expectation Training

There were 17 black boys and 17 black girls who completed Expectation Training. Their training was carried out by the college-age tutors working in teams. Each team of four tutors was responsible for 8 black students. Each tutor specialized in one Intervention task. They were responsible for assisting all eight children to reach a criterion level of performance on each of the four tasks. They were also responsible for training the students to be adequate teachers.

These college-age tutors were taught to use specific reinforcement procedures when teaching the children. They were to reinforce students for "speaking up," "being self-confident," and "explaining ideas." They were taught to help the children deal with questions from their white students, so that they would not lose poise in their role as "teachers."

The specific reinforcement procedures developed in connection with the laboratory version of Expectation Training were utilized with one of the Intervention Tasks--Teaching the Malaysian language.

Each black student who underwent training had to learn four different tasks and had to teach these tasks to someone else. The four tasks were: building a radio transmitter, playing a spatial relations (Mem.) game, speaking the Malaysian language and learning about the culture, and constructing geometric figures. Two of these were school-type tasks and two were not. We tried to pick tasks where no child would enter with an initial advantage and tasks for which there were no specific cultural expectations for either black or white competence attached.

Each of the tasks underwent extensive pre-testing, insuring that the majority of students would be able to master the task in a relatively short time and would be able to handle the teaching materials

prepared for use with it. The tasks are briefly described here; samples of the instructional materials are included in the Appendix.

Malaysian Language Task

By the end of five structured lessons, a student had mastered 25-30 Malaysian words and could engage in a simple conversation. In addition he or she was able to identify and explain 28 slides portraying Malaysian culture and customs. There were several slides connected with each lesson.

The lessons were designed so that the children would be rewarded by speaking in new sentences without having to learn many new words each time. The words themselves were chosen for their intrinsic interest, amusing sounds, resemblance to the English language and ease in pronunciation. Examples of amusing words are "laki-laki" (man) and "gula-gula" (candy). Action words such as "kick" or "throw" were also included.

Each lesson included some special aids to maintain interest. In addition to the slides, there were cards of pictured objects. Students could handle these as well as look at them. Using the cards, words could be arranged to form nonsense sentences such as, "The ball kicks the man." When action words were taught, objects such as a ball were included which could be manipulated by the teacher for illustrative purposes. One lesson contained a cartoon sequence for which the children could make captions using their word cards.

There was a short handbook for each lesson. (See Appendix.) In addition there was a Dialogue Book which was used throughout. This had many pictures and was used for review and for practice conversations. These handbooks were specially designed to minimize the need for reading. The teacher learned a set of symbols enabling him to see at a glance what he needed to do. One set of symbols told him to point to a word card and ask his student to identify it in Malaysian. Another symbol told the teacher to place the picture of the object in front of the student. On the right side of each page the target word or sentence to be learned was clearly indicated, so that the teacher always knew what had to be stressed.

These same handbooks proved to be equally effective at teaching devices for the college-age tutors when they taught the black students in Expectation Training, for the black students when they taught the white students, and for the regular faculty when they taught the task in the Learning Center Treatment. Information about the slides was part of the Handbook for each lesson. As the student looked at the slides with a viewer, the teacher could read or refer to the pertinent information in the Handbook. The Dialogue Book included little quizzes for the student; the answers were provided in the teacher's handbook.

There were many ways that the teaching materials provided the black student with an authoritative, structured, and directive teacher role. The fact that so little reading was required allowed the teacher to look at the student most of the time while directing his behavior. The teacher's manipulation of objects provided a natural focus for the students' attention. In addition, as he lectured on the slides he conveyed a very informed and knowledgeable demeanor.

On the last day of training, each black student was videotaped carrying on a simple conversation in Malaysian with a graduate student from that country. He wore a native hat and the children were excited at the chance to speak with a real Malaysian.

When the white students arrived the second week, each black "teacher" with his white student was taken to see this videotape. As it was replayed, the graduate student reinforced the black "teacher" for his ability to speak the language "like a native."

Mem Task

Mem is a colorful puzzle requiring clever problem-solving techniques. The Mem board is small, about 9 x 9 inches with 32 squares. On each square is a mem stone, 32 stones in all; the stones are divided among 11 different attractive colors.

Through a series of carefully prepared lessons of graduated difficulty the student learns how to remove exactly one-half of the stones onto an additional Mem board. The movement of stones from one board to another must follow certain rules. By thoughtful placement of stones on the second Mem board the student is able to create a new path of

connected stones left on the original Mem board. An important characteristic of this task is its apparent difficulty. Initially, the problem looks very difficult; and an adult with no instruction would ordinarily require several days of concentrated trial and error before he could figure out reliable methods of solution.

Since the stones are placed randomly on the board at the start of each problem session, there are several billion unique arrangements and no minimized solutions. Each problem requires the student to apply the basic solution principles creatively and carefully in order to avoid certain traps leading to a non-solution.

Math Task

The mathematics task consisted of a sequence of activities designed for teaching students the basic concepts and construction skills required to build three-dimensional geometric models with straws and pipe cleaners.

In both the student and tutor versions of the manual, the lessons were presented in considerable detail, in order to anticipate as many instructional problems as possible. At the completion of the task, each student had built a minimum of three different dualized polyhedra and had an understanding of a number of elementary concepts and theorems basic to geometry and algebra. The concepts were chosen with respect to their utility for building the models; they are therefore not a completely representative or comprehensive sampling of all the geometrical ideas that make up the typical elementary geometry curriculum.

A critical dimension in developing this task was its ability to raise and maintain a high level of interest on the part of the students. To best facilitate the desired level of motivation, the black child was first taught the vocabulary and distinguishing characteristics of the polygons, "triangles," "quadrilaterals," and "pentagons." When the three-dimensional figures (polyhedra) were introduced, the child was taught the concepts "face," "vertex" and "edge"; also the constant relationship between their numbers as generalized by Euler's formula ($F + V - 2 = E$). As a culmination of these activities, the child was guided in building complex straw polyhedra consisting of a foundation

model upon which a larger model was constructed. During the second week, the black child then used his own illustrated manual to teach the same material to a white child. Each lesson was preceded by a period of review during which the black child was given specific suggestions on how and what to teach, as well as general reinforcement on his earlier performance and his competence to teach.

By providing competency in how to teach as well as in what to teach, the mathematics curriculum provided the black student with an authoritative, structured, and directive teacher role necessary to fulfill the conditions of Expectation Training.

The Radio Transmitter

The objective of this task was to construct a radio transmitter which would actually broadcast through a receiver (an ordinary radio). The circuits had been constructed on a flat circuit board, with the necessary connections or wiring to be done by the students. The students received explanations and were expected to teach the functions of the various components.

Learning about the task was divided into four stages: Microphone Circuit, Amplifier Circuit, Radio Wave Circuit, and the Power Supply.

Stage I

It was necessary for the students to wire the complete microphone circuit and explain the function of the components; the function of the capacitors was to filter certain currents and allow others to pass; the resistors were to slow up the current; the microphone was to transform sound into electric current.

Stage II

In the amplifier stage, it was necessary for the students to wire and explain the functions of resistors and capacitors as well as the work of the transistor, which served to amplify the sound.

Stage III

The radio wave stage was actually a simplified term for the modulator-oscillator circuit. For this stage, the students had to wire the circuit, and explain once again the function of the resistors and capacitor, and an antenna. As indicated by the nature of the circuit, the students now had to understand how the electrical impulses of the sound waves were transformed or superimposed on to radio waves. Also,

they had to understand how the variable capacitor could serve to send the sound out on a certain frequency. The antenna was simply wired without an elaborate explanation.

Stage IV

Having completed and checked the wiring of all of the circuits, the students then wired the power supply and attached a battery which then made a complete circuit of the transmitter.

The college-age tutors had a rather detailed program manual which was primarily for their own benefit. They had a more complete understanding than the students. The students, in contrast, only had a four page manual which was made up of a picture of the components, wiring diagrams for each of the circuits, and a wiring diagram for the total transmitter. The student had to memorize the functions of the parts and be able to identify them.

The teaching schedule was approximately as follows: On the first day they learned the parts and could identify them on the board. On the second day they attempted to wire each of the circuits. The circuits were differentiated by different color wires. The third day was taken up with exploring the use of the radio transmitter by making broadcasts. On the fourth day they practiced teaching the entire process. This gave them the opportunity to increase their grasp of the whole task. The final day involved a review of everything which had been learned.

All of the college-age tutors made large poster boards of all the circuits in color. They also had pictures of the parts which the students were to correctly identify. There was one picture with blanks and another with names. When the black students became teachers they used the poster boards in connection with the short manual. In Expectation Training, each student and teacher had their own complete set of equipment to work with. (See the copy of the short manual in the Appendix).

Expectation Training--The Teaching Week

When the white students in the Expectation Training treatment arrived, they were taken to the auditorium, where they received name tags and were paired with a black student teacher. College-age tutors

then ushered groups of teachers and students to their assigned classrooms.

The teaching day was divided into four periods, one for each task. Insofar as possible, each white student was to work with four different black teachers, one for each of the four intervention tasks. For a given task, he was supposed to have the same teacher every day. Recreation and snacks took place after the second period. This teaching went on for five days.

In reality, this process did not proceed strictly according to plan. For one thing, there were some absences during Training and Teaching Weeks. If a black teacher were absent, a white student might be left with nothing to do unless he or she were doubled up with another white student. There were also problems with white students being absent, which left black teachers without any students.

Second, some of the black students reported nervousness at the prospect of teaching. Much of this wore off after the first day. When necessary, the college-age tutor was available to help with the teaching process. When this happened, the teaching session was considered "structured," as opposed to the "solo" performance of a black teacher requiring no assistance.

As soon as it was realized that not all black students were going to be given the chance to teach all four tasks for a week, we asked the tutors to keep detailed records as to just how much teaching each black child was doing and how much assistance from the tutor he was requiring. We also kept records as to how many different black teachers white children were exposed to. These records were reduced to a quantitative variable called Degree of Treatment.

It is important to note that the teaching process took place in a room with four teachers and their students working simultaneously. Thus a white student in the room, regardless of his evaluation of his own particular teacher for a single task was receiving a massive dose of black competence. We could see the other black teachers at work and could walk through the hall and see the same thing happening in other classrooms. Furthermore, if he didn't think highly of one of his teachers he had three other teachers to think about.

By and large, the black children adopted the teacher's role amazingly well. They seemed quite self-confident and appeared to enjoy alternately reinforcing and criticizing their students. It was surprising to see the boys, who had been mischievous and lively during the first week become dignified and task-oriented as teachers. A few became somewhat despotic in their role as teachers and scolded their students for failing to learn. One of them was heard to say, "Man, you so slow--you never goin' to learn!" When white students asked challenging questions, their black teachers responded with considerable poise. The teacher-learner situation naturally brought the children into close physical contact. They often handled the same physical materials together; and there was frequent giving and taking of objects as well as informal physical contact. The movie made of this period shows frequent smiles, responsiveness, and intense concentration.

During this week there were two kinds of reinforcement for the black teachers. The first, as described above, consisted in the videotaped display of competence as a Malaysian speaker which was shown to the student and teacher. The second was the reinforcement of competence as a teacher. This was accomplished by bringing a portable videotape recorder and camera into the classroom. The teacher and student were videotaped as they worked. The tape was shown immediately afterward to both children and the teacher was reinforced for "speaking up," "being self-confident," and "explaining well."

The Alternative Treatment--The Learning Center

From the beginning of this study, we had no desire to set up a straw man by way of a comparison group. Previous studies showed us that untreated groups exhibited a pattern of white dominance. We also felt that it would not be instructive to run a conventional summer school program as a comparison treatment, as it would be difficult to isolate the features of either environment which aggravated or improved interracial interaction disability.

We therefore chose to design an alternative environment which matched many of the features of the Expectation Training environment, but which omitted the formal role of the black child teaching the white

child. The very same carefully designed and intrinsically interesting tasks were used, but accredited teachers and teacher aides played an important role in teaching these tasks.

These classrooms were designed to encourage interracial cooperative behavior through the medium of working in small racially mixed groups. A team of four teachers and teacher aides worked with approximately 20 to 24 children of the same sex. This ratio of adults to children allowed the teachers to provide much attention to individuals and small groups. The rooms were set up with four learning centers. At each center was an adult trained to teach one of the intervention tasks and equipped with all the teaching materials used by the young black teachers in the Expectation Training condition. Groups of children moved through the four learning centers each morning, so that they had four lessons, one for each of the tasks.

The teachers were instructed to foster cooperation, to eliminate competitive elements and to maintain a non-punitive attitude toward the children.

These Learning Center classrooms worked out exceedingly well. The interracial teams of teachers were very pleased with the interesting and carefully prepared curriculum materials. Only the radio-building task was considered difficult. Some of the teachers stayed close to the manuals prepared for the black teachers in Expectation Training. Others improvised by providing more sharing between members of the small group and making games out of the learning experience. Teachers reported that the children had no great difficulty in mastering the tasks. There were some individual differences in speed of learning and in interest in particular tasks, but these were not felt to be systematically related to race.

Most of the teachers in this setting spent a lot of time working with individual children. They encouraged the children to teach each other as well. These materials were so carefully structured for ease in assuming the teacher role, that many children soon wanted to play the teacher role. They set up game boards for each other in the Mem task; they lectured on circuitry to each other in the radio task; they drilled each other on words in the Malay task; a teacher-leader tended

to emerge on the Math task who would sort out geometric shapes and distribute them to the others.

In this situation, where their task was well-prepared and many of the stresses of classroom management reduced, the teachers were unusually successful in putting into practice what they knew about the needs of children. They seemed to be almost completely non-punitive. They reinforced the positive features of everyone's performance. They were sensitive to individual children's moods and needs for social acceptance. They tried to make the children feel "good about themselves."

The small groups were not racially balanced because the classrooms were predominantly black. Nevertheless the staff was successful in keeping a racial mixture in all the groups. The boys' classrooms reported much more physical activity than the girls' classrooms where everything was reported to "go like clockwork." Some black children were playfully aggressive from the beginning; some white children were obviously frightened and mistrustful of the motives of these black children. Others were "standoffish" with each other until they became involved in these interesting tasks. Then many appeared to forget about race and became absorbed and involved in the structure of activities provided by the task. Teachers often reported that the black children had more to say and were rather dominant on the tasks from the first. When a few white children tried to demonstrate that they knew much more about the radio task, the group abruptly isolated and ignored what they seemed to feel was an illegitimate attempt at gaining status. One white boy had his father go down to the Radio Shack and buy all the parts for the radio transmitter. He claimed that he had a radio transmitter already built at home and knew all about it. In contrast to what might happen in a normal schoolroom, this did not gain him status, but the teacher reported that the group simply "turned him off."

There were several problems with the procedure used in these classrooms. The most outstanding was inadequacy of materials for the radio transmitter task. There were not enough boards for these classrooms, which were somewhat larger than expected. The teachers felt inadequately trained; and sometimes there were almost no materials

available for a group as large as seven. The teachers improvised very well with diagrams and other home grown teacher materials.

The other major problem was the lack of racial balance in these classrooms. During this first week we were still trying and partially succeeding, to recruit new whites for the Learning Center. Several white students entered the situation late.

Review of Treatment Highlights

There were a number of features of the Learning Center which should be kept in mind when examining the results of this treatment. The following features distinguished Learning Center classrooms from conventional classrooms:

1. An interracial team of teachers shared power and authority equally between blacks and whites.
2. Adults served as role models of interracial cooperation.
3. Tasks were structured and intrinsically interesting, permitting children to experience a high level of success each day.
4. There was an opportunity for interracial interaction in small groups where the teacher guided and supervised the interaction, thereby minimizing a status struggle within the group.
5. A strong didactic element encouraged the children to work toward interracial cooperation.
6. Children were reinforced, accepted and positively evaluated by teachers of both races.
7. Competition was eliminated.

At the beginning of the second week of the school, the regular faculty of the summer school were assigned to classrooms in teams of two. Up to this point they had all been working as teams of four in the Learning Center classrooms. Now half of them were assigned to classrooms in the Expectation Training or Tutorial Wing, as it was called, while the other half were assigned to classrooms in the Learning Center Wing. From this point on, the treatment in both conditions was identical.

CHAPTER V

RATIONALE AND PROCEDURE FOR THE CLASSROOM PHASE

Activities for the Classroom Phase were designed to provide a setting for learning which conformed to desired social structural properties. At one and the same time we wanted to provide rich opportunities for interracial classroom interaction in order to test the persistence of treatment, and to learn if cooperative classroom social structure was a practical possibility for children and teachers accustomed to a more competitive, individualistic set of classroom norms.

Requirements For Curriculum Development

In order to produce classrooms with the desired features, the two curricula were deliberately planned with social specifications in mind. Volunteer professional educators from the Stanford University School of Education were asked to develop curricula engineered for small racially balanced groups, involving interdependent tasks. The range of classroom tasks was dramatically broadened to include a variety of human talents and mental abilities. Opportunities for participation and peer evaluation were sharply increased by the allocation of tasks to classroom groups. Although intrinsically interesting and intellectually defensible, these tasks could not require reading and writing skills. There was a sharp reduction in reliance on teacher directives with the introduction of prepared instructions in the materials given to the groups. The teacher was a resource person rather than prime evaluator and major speaker.

In addition to these requirements designed to produce interdependent peer interaction, the evaluation system of the classroom was most unusual. We eliminated grades, public recitation, and teacher evaluation of individual performance; opportunities for invidious comparison and competition were greatly reduced. Evaluation was of the group rather than the individual product.

These were planned changes of two basic features of the conventional

schoolroom: (1) the tendency to build up a clearly perceived single rank order of general academic ability and (2) the competitive system of individual accountability.

In order to avoid building up a rank order based on academic skills, we avoided requiring reading and writing skills. As discussed in Chapter II, if the black subjects were more likely to have reading and writing skill deficits, and if we were to make reading and writing a requirement for successful completion of tasks in the curricula, then we would be very likely to build a new status order based on reading and writing performance. This new status order would have whites ranking above blacks. In order to maintain equal status interaction, the tasks would have to be truly new for everyone, assigning to no student a high level of competence before the group even started to work. At the same time, we wished to demonstrate that such curricula could be intellectually challenging and could deal with skills defensible as worthwhile and important within a school experience. We particularly wanted curricular experience requiring a wider range of skills and abilities than is typical in classrooms, so that the children's view of each other might become individualized and unstereotyped as they saw how each person could contribute something special and something different to the group task.

The rationale for the cooperative aspects of the classroom tasks and evaluation system grew out of theoretical and empirical studies of the effects of competition vs. cooperation. Several studies have found that interpersonal relations between participants in cooperative tasks are much more positive than among participants in competitive tasks. Researchers have reported less aggressive behavior, higher attraction ratings, and a "warmer" atmosphere in cooperative rather than competitive groups. With specific reference to status characteristics, Awang-Had Salleh (1972) found that if individuals were told that the quality of their contribution to the group was to be evaluated and that they were to be held accountable individually for this contribution, the effect of differences in status was greatly aggravated. The low status individuals were much less prone to take the risk of venturing suggestions under such circumstances as compared to the situation where

the group's product was the only focus of evaluation (1972).

The volunteers at the Stanford School of Education rose to this unusual challenge in curriculum construction. They designed and pre-tested two curricula: the Observation Curriculum and the Film-Making Curriculum. These two curricula were developed in complete detail down to daily lesson plans. For the Observation Curriculum, many materials were manufactured expressly for the summer school. These curricula are unusual because they are engineered for small groups and do not require reading or writing skills. They are structured as to what is to be accomplished and the roles the members of the group must play. Nevertheless there is room for much free interaction within the task and also room for considerable creativity. Individuals working on the task may make different kinds of contributions and may work with a plurality of cultural style; all this only adds to the strength of the group product.

Classroom Activities

On Monday through Thursday of the Classroom Phase, all students attended one period of the Observation Curriculum and one of the Film Curriculum. These two curricula were taught by different teams, so that each classroom experienced two teams of teachers, teacher aides and tutors.

There was an attempt to develop a non-competitive recreational curriculum called Movement Education. The materials were prepared and pre-tested by a Physical Education specialist. However, most of the faculty were markedly unenthusiastic about teaching it; they felt that the children were unresponsive. In order not to endanger the morale of the staff, we did not make this compulsory. Recreation periods were then more conventional with children out in the play yard with the tutors playing basketball and other sports. The black children were far more able and aggressive in these sports than the whites, who sat on the benches watching with a few exceptions. In this single respect, the school resembled the experience of the typical racially integrated school.

On Fridays, the schedule was more flexible. Teachers were asked to have the children compose an interracial newspaper in each classroom.

Unfinished tasks or tasks which the groups wanted to prolong from the curricula were carried out. A singing session was held for each pair of classrooms of the same sex and within the same treatment. These were led by a credentialed music teacher using a guitar and song sheets. These sessions were felt to be highly successful.

The Observation Curriculum

The major purpose of the content of this curriculum was to make explicit the processes utilized by students in observing, evaluating, and understanding pictures, symbols, and environmental cues. The student was to learn the difference between fact and inference.

These processes are referred to as scientific observation. Instead of using the more conventional reading, writing, and lecture method of grasping these abstract ideas, Observation Curriculum activities were "learning by doing." Only after active involvement with a relatively concrete task, were the more abstruse labels introduced, such as the difference between "cues" and "context." There were four elements of scientific observation: concrete observation (identification of objects in the environment); abstract observation (association of ideas with objects that have been identified); symbolic observation (recognition of objects, commonly agreed upon, as representing specific ideas); and inference-making (arriving at tentative conclusions based on association of a variety of facts).

In the first week, the students were divided into groups of four and five which remained fairly stable until the end of the summer school. Because the group was going to have to learn how to work with each other, the first activity was "Broken Squares," a game to illustrate the necessity of cooperation. The group was given a packet with four envelopes, containing pieces of cardboard for forming squares. The task was to form four squares of equal size so that each individual would have before him a perfect square of the same size as that held by others. Members were not allowed to speak or to ask another member for a card. Members could, however, give cards to other members. The task was so designed that group members would have to share cards in order to build perfect squares. A discussion followed this task with the goal of having

the students understand that the process of cooperation entails working together on a project to produce a group product. The idea of cooperation as it applied to the forthcoming summer school activities was explicitly introduced.

Other activities of the first week involved learning to be aware of cues and context through trying to say what they saw on ambiguous slides, scenes shown for only a half a second. Small groups rotated through a set of activities designed to give increased skill in differentiating between concrete and abstract observation, naming, ordering, and assigning meaning to cues. These activities consisted of a) completing a workbook designed to be used by a group working with a playback machine and headsets for each group member, b) making puzzles when each group member had a plastic bag with only $\frac{1}{4}$ of the pieces, and c) guessing the meaning of pictures by successive clues given by means of slides. The terminal activity for the week involved the demonstration of learned skills; each group created a pantomine made up of acted-out cues. As each group provided more cue numbers of signal cards, the class attempted to guess the activity they were pantomining.

In the second week of the curriculum the students learned to interpret symbols both in isolation and in context. They viewed a film which told a story through dots and lines. Following this initial activity they buried a treasure for their classmates to find, making up a symbolic message directing another group to the location of the treasure. The small groups decoded a rebus (a way of expressing words or phrases by using pictures or letters of the alphabet whose names resemble those words), decoded a message by means of cipher charts, and worked with map reading as a form of symbolic representation. Finally they made up their own set of symbols and created a message as a group.

During the third week, the students were introduced to the skills and frame of reference of the anthropologist. They categorized and made inferences concerning artifacts of food, clothing, shelter, and tools. They actually constructed a site, laying out string in five foot squares and placed artifacts in appropriate places, using site maps. Each group was given a question to answer by making inferences from the artifacts; they presented their answers to the class as a whole.

In the final week the students learned to evaluate and order evidence in order to solve the archeological mystery of the Masada site in Israel. In order to do this they used the key concepts of facts, artifacts, evidence, inference, category and culture. Each member of the group had part of the set of clues to the mystery and had to work together to arrive at a solution. As a final task, each group made up a site representing their own culture. The other groups had to identify cues and draw inferences based on the presentation.

In order to evaluate the ability of the students to recognize cues and draw inferences as a result of their learning experience, a movie was shown before the curriculum began and after it was completed. The class was asked to describe cues and to make inferences.

Film-Making Curriculum

The general objective of the film curriculum was to provide instruction in the basic skills of motion picture photography within a framework designed to promote cooperation. As in the Observation Curriculum, activities were designed for small racially balanced groups of children. Participation of each child was guaranteed by the rotation of roles of script writer, cameraman, editor, and critic. Each child had an equal voice in what to include and exclude in their movies.

The film curriculum was ideally suited for a program designed to promote interracial cooperation. In addition to the intrinsic motivation provided by the movie equipment, the satisfying feedback of seeing the group's footage printed up for projection the very next day, and the high degree of involvement in producing a short film inspired a seriousness of purpose in each group of young film-makers. They had to think, organize their ideas, plan their shots, look closely at their subjects, and make rapid decisions about what would best fit into their photographic statement. After the movie was shot, each group had to review their work, decide what to edit out and what to edit in. In order to be successful, each group had to work as a unit, and each individual within the group had to learn the basic skills of motion picture photography.

The cameras used were relatively simple, Kodak M-24 movie cameras, which

helped to diminish the frustration often associated with learning to use complex machinery. Students learned to use these cameras both by handholding them and with tripods. They edited and spliced their own film with the use of editing and splicing equipment purchased for the use of each group. Three of the movie cameras were donated by the Kodak Company. Some of the equipment was paid for by the Oakland Unified School District.

During the first week, students were introduced to the operation of the equipment. This was not done by extended teacher demonstration; instead, the equipment was placed immediately in the hands of the students. After a brief explanation of loading and shooting techniques, each group was given a roll of film to shoot. The remainder of the week was spent in viewing and editing this film, becoming more familiar with camera, tripod, editor, and splicer.

The skills of the group were built up through the shooting and editing of specific assignments. These included: a person running; inanimate subject; and "two people approaching one another from different directions." These short assignments were edited, spliced together and shared with the whole class by the beginning of the third week.

The terminal activity of the three week program spanned the last two weeks. During this period, new groups were composed according to the sociometric preference of the children and the necessity of providing racial mixture within each group. Each group planned and prepared a five-minute movie. All their newly acquired skills were focused on the development of a theme or a statement. This activity presented each group with an additional problem, that of audience; the movie was to be screened before their parents at their own film festival.

Some of the final films were highly creative. The children shot footage in sites such as cemeteries and swimming pools. They acquired skills in the art of animation so they could have professional credits' listing and so that they could obtain special effects like the blood-stained sneakers of Dracula advancing solo across the floor. The final films showed the strong influence of the horrors of television with rather common themes of murder and fighting. One film pictured a fight between Muhammed Ali and an erstwhile opponent; Ali, interestingly

enough, was played by a white child. On the night of the film festival, the turnout of black and white parents was remarkable, much higher than typical of Claremont Junior High. In the classrooms, parents saw the films of each group and moved around to different classrooms for the screenings there.

Those who designed the film curriculum were very careful to prepare activities which could not be dominated by any one or two members of a group to the exclusion of one or two others. In each activity there was a series of roles. If one student assumed the role of cameraman in the first activity, his role in the next activity would change to actor, editor, lightman or propman, while another student served as cameraman. In this way each student performed all the tasks. The end product of each activity was the result of their cooperative effort. To the students, the most important role was that of cameraman.

The students learned a number of specific skills which can be classified as movie equipment and film language skills. Under the heading of movie equipment manipulation they learned how to load, aim, and shoot movies with a camera. They had to be able to troubleshoot a camera for battery and lighting problems. They had to learn how to use a tripod and how to determine the amount of footage left after each shooting. Timing was another skill acquired. Each student learned to use the projector taking turns loading the projector, screening the film and rewinding the footage. Likewise, each student learned to thread the editor, view his footage, cut out what did not fit, and splice in something better. Learning to edit films proved to be the most difficult of all the skills for the children to acquire.

As a film language skill, the students began to learn the fundamentals of how to look at a subject, something rarely mastered by amateurs. Nevertheless, their movies reveal that they learned the basics of camera movement to and from an object, how to pan, and how to tilt the camera. They learned the importance of distance, how and when to get close-ups and distance shots. Finally, they learned the techniques required to film their subjects from a variety of different angles.

The role of the teachers was particularly crucial and difficult; it was essential that they not assume an overly directive, dominant role.

We did not want teachers who were expert movie-makers, and who might make the technical skills involved in movie-making the most important object of instruction. We wanted teachers who would encourage students to discover for themselves what they could. We wanted teachers who could observe student interaction, encourage helping behaviors, and deal with abrasive behaviors calmly and with a minimum of attention and reinforcement for negative behavior.

CHAPTER VI

DATA COLLECTION AND MEASUREMENT PROCEDURES

The critical measurement of effects of the two treatments was the standard criterion task for small interracial groups, the game called Kill the Bull. Students played the first round of this game the week after the initial intervention and the second round the last week of the summer school.

In addition to this systematic behavioral data gathered by means of videotape, a variety of supplementary measurements were made on the response of the students to the intervention and to the curricula of the classroom phase. Interracial interaction in the ongoing groups of the classroom phase was scored by classroom observers in order to substantiate the data collected at the two critical measurement times.

There were also rich sources of data in the productions of the children themselves, their interracial newspapers, their films. Classroom observers kept anecdotal records; teachers turned in reports; administrators were interviewed. Much of this material is classified as "soft" data and is briefly described in this chapter.

The Criterion Task

In the week following the initial intervention, the children were composed into single-sex classroom groups. For the first time, students in Expectation Training met their teachers and teacher aides who were to instruct them for the rest of the summer school. Up to this time, they had worked exclusively with the black college students who had served as their trainers.

Activities in the classrooms were loosely structured during the first measurement week. There was a good deal of freedom; many children were in the library acquainting themselves with the rich store of materials available there. Others were getting to know the administrative staff. Black students in Expectation Training were very disappointed when their original college-age trainers were not in their

classrooms; they sought them out. Many of the teachers chose to carry on the Intervention Week tasks where there was still much interest. Some time was spent decorating the classroom using interracial and cooperative themes.

Initial Measurement

The most important task of the week following the intervention was the measurement of the effect of the two treatments in a standardized interaction situation. For this purpose we used the criterion task from previous laboratory work, a game called Kill the Bull.

Four-person groups were composed in the following manner: The children in a given group were all of the same sex and were participating in the same treatment condition. There were always two black and two white children in each group. The black children had not been teachers of these particular white children; they had worked in different rooms. They played on a table in front of a video camera; there were four video stations working simultaneously. The college-age tutors served as runners to find them in their classrooms for the game and to take them to a post-game interview.

The Host Experimenters were men from countries like Pakistan and the Philippines; they were neither Caucasian nor black. Instructions for Kill the Bull were communicated by means of a tape recorder while the Host Experimenter demonstrated. The instructions were repeated on a large chart in the room. Seating was assigned with a randomly shuffled deck of cards. Students wore large name tags and had numbers in front of them on the table.

Following the game they were taken to rooms for interview. Each child was interviewed by a person of his or her own racial background. Each was given an opportunity to speak freely of pleasant and unpleasant features of the first week. Interviews were tape recorded. For the children who had received Expectation Training, there were specific questions on the teaching-learning experience and their reactions to it. In addition, all children were given a written questionnaire at this time. Included were items measuring efficacy as well as their liking or disliking for the four tasks of the first week.

Relevance Treatment

Prior to playing Kill the Bull, each black child in the Expectation Training condition was taken aside by a college-age tutor. He or she explained to them that the self-confident behavior they had been exhibiting as a teacher would help to make them a good member of the team on the game they were about to play. Furthermore, after the game they were told that this self-confident behavior was relevant and useful for the classroom activities that they were about to engage in for the rest of the summer school. This was the Relevance step which had been associated with the most successful treatment in previous laboratory work.

Final Measurement

In the last few days of the summer school, new groups were composed for a second round of the criterion measure. Children in a given group were of the same sex; two were white and two were black. The members of the differing races were taken from different classrooms, but all group members had been exposed to the same treatment. No one in the group had played Kill the Bull with any other group member in the first round.

After playing the second round of the game, the children filled out a questionnaire concerning their perceptions of Kill the Bull and their choice of a group member as leader. Before being returned to their classrooms they were given a brief interview on pleasant and unpleasant experiences they wished to report in the Classroom Phase of the Summer School.

Scoring Procedures

Videotapes made of interaction on the Criterion Task were taken back to Stanford for scoring by observers who were not acquainted with the hypotheses. Observers counted the number of task-related speeches of each participant. Any task-related speech received a score of one unit; it is counted as one speech until it ends or is interrupted.

In addition to the scores for initiation, a systematic measure of influence was taken. The group member who suggested the path that was eventually accepted by the group received credit for influence. In

addition, members who were successful at persuading others to accept the path were awarded points. The directions used by the scorers are in the Appendices of this report.

In order to determine reliability of the observers, every fifth tape was double-scored by two observers. A chi square test was computed to determine if the distributions of acts initiated across players assigned by the two observers were significantly different. In no case did the probability of the observed differences between two scorers reach the .05 level of statistical significance on a chi square test.

Questionnaire Data

At various times during the summer questionnaires were administered to the students and their parents. The parents were required to answer questions on their occupation and education on the original application to the summer school.

As described above, the children were given a questionnaire in addition to an interview following the first criterion task. This questionnaire contained questions regarding feeling of efficacy and responses to the tasks used in the intervention. For those who were in the Expectation Training condition, there were questions on their response to being a teacher or a student as well as an evaluation of their perceptions of the college-age tutors.

Following the second round of Kill the Bull in the last week, a questionnaire on the perceived importance of doing well on the game as well as the choice of group member whom they considered "leader" of the second round of the game was administered.

On the last day, the children filled out a questionnaire concerning their sociometric choices of classmates for three domains: work, social power, and friendship. They also filled out attitude items on Racial Consciousness and Attraction to Whites which had been developed by Mr. Robert Newby expressly for the project.

Summary of Supplemental Data Collected

We were able to collect a tremendous amount of data on the students at the summer school. Some of these data are highly reliable and quantitative in nature, other data are of the "softer variety" such as student columns in the newspaper and anecdotal reports of classroom

incidents and behavior. Putting these two kinds of data together can provide a much fuller picture than is typical of experimental work.

Quantifiable Data

1. On the original application to the summer school, parents filled out socioeconomic background data.
2. The tutor's reports on the extent to which the black children were able to master four tasks and find white students to teach these to have been compiled into a Degree of Treatment Index. A parallel score is available for whites who underwent Expectation Training.
3. The responses of the first questionnaire provide;
 - a. scores on efficacy
 - b. the degree to which the children liked or disliked the Intervention Tasks
 - c. the degree to which they responded favorably to Expectation Training
 - d. a measure of the children's response to the use of college-age tutors
4. The questionnaire following the second round of Kill the Bull provides;
 - a. the perceived importance of doing well on the game
 - b. the perceived suitability of the game for girls as well as boys
 - c. choice of member of the group as "leader" during the game
5. Systematic observations of task-related participation in classroom groups during the two curricula were made by tutors who were trained as observers. Task groups ranged in size from 3 to 5. Task-related verbal initiations were scored for each group member during a five-minute period in both film and observation curriculum tasks. Large group discussions were also scored.
6. Sociometric data gathered from the children provide a measure of cross-race choosing in indices of work, friendship and social power.
7. Attitude measures on racial consciousness and attraction to whites were derived from a questionnaire.
8. Attendance data were collected on all students.
9. Teachers and observers were asked to make rankings on the extent to which children participated in the two curricula.
10. Finally, data on difficulties in reading were obtained for as many children as possible who were enrolled in the Oakland school system.

"Soft" Data

1. Interracial newspapers created by the children.
2. Weekly reports filed by the teachers.
3. Anecdotal records kept by classroom observers.
4. Taped final report by administrators.
5. Tapes of teachers evaluating the curricula.
6. Films created by the children.
7. Responses on open-ended questions in the interviews conducted after the criterion measures.
8. Taped recording of classroom discussion of posttest film in the Observation Curriculum.
9. Results of classroom observations made by Principal Investigator.

CHAPTER VII

EFFECTS OF TREATMENT--CRITERION TASK RESULTS

Accustomed as we were to the more controlled setting of the laboratory, running such a complex experiment in the field was quite a shock. For example, we were not prepared for problems of absences during the first critical week when the black students of Expectation Training were undergoing training of four tasks and during the intervention week. Four very complex tasks are quite a challenge to master in one week, considering that both students and their college-age instructors were not convinced that it could be done. It became obvious by the end of the first week of training that many of the black students were not at all confident of at least one of the tasks. Because it was so essential that black students be successful in their role as teachers, we decided that the tutors would offer some tactful assistance in the teaching process when it was strictly necessary. We asked the tutors to keep records of when this became necessary. In addition, due to absences of white students, some well-prepared black students had no pupils to teach. From the evaluative point of view, instead of clear-cut categories on Expectation Training vs. Alternative Treatment, we had data on the extent to which students were able to carry out the Expectation Training tasks completely independently, and how many lessons they actually taught. The possibility of accounting for some of our findings by whether or not the black students were able to teach all 20 lessons by themselves (4 tasks, 5 days) is explored in the following chapter on interpretation of the criterion task data.

Proportions of Black Students Requiring Coaching

As it turned out, many black students' fears of not knowing the tasks were unfounded; fewer required assistance than we estimated would be necessary by the end of the week of training. Table 7.1 shows the percentage of time black students were able to teach a complete lesson unassisted by the black college instructor--we call these lessons "Solo."

When the college instructor was needed to give assistance to the black student teacher during an instructional period, this was labeled, "Structured." Each college instructor kept daily records of whether a specific lesson was taught under solo or structured conditions. The percentage of students requiring assistance for the four tasks varied between 19% and 27%. For the most part, different children were requiring assistance on different tasks.

TABLE 7.1

Proportion of Students Able to Teach Solo or Requiring Structured Assistance for Four Tasks: Black Students, Expectation Training Condition Only

Task	Percentage Solo Instructors	Percentage Requiring Structured Assistance	N
Math	75%	25%	34
Language (Malay)	79%	21%	34
Mem	73%	27%	34
Electronics	81%	19%	34

An overall score was derived for each black student made up of the sum total of the scores received for each task divided by the number of tasks (4). The top score for each task was 10 and this would represent solo teaching every day they were in school. If students required structured assistance, they received a score of "5" for that day; and if they were in school but there was no record of their having taught a white student (possibly because white students were absent), then they were scored "0" for the day. The total score for the week was divided by the number of days the student was present. Thus, the total score for each student varied between 0 and 10. Seventy percent of the students received a total score of "8" or better.

As described in the previous chapter, videotapes were scored for the

number of task-related speeches attributed to each individual. For purposes of data analysis, the criterion task data were separated into the first and second round of the game taking place just after intervention and in the final week of the school. Next, the two blacks and two whites of each group were divided into the more and less active of each racial pair. Initiation rates are examined separately by activity ranking. This is necessary because two members of a racial pair often have dissimilar initiation rates; it is often the case that at least one black player in a group is more active than one white player.

Analysis of initiation rates is always based on group measures; theoretically, a person's initiation rate is not a simple function of the characteristics of that person, but is seen as a function of the composition of the group and their interaction. Therefore the critical statistic in analysis of initiation rates is the percentage of task acts an individual contributes to the group total. The percentage for each group is then averaged across all groups in a given category so that the summary statistic is the average percent of task-related acts contributed by more active blacks, less active blacks, more active whites, and less active whites.

Patterns of Interracial Interaction Disability

Using this method of characterizing criterion task data, previous research has yielded characteristics of untreated and unsuccessfully treated groups. Typically, the less active black's average contribution to the group is very small--much smaller (often by as much as 10%) than the contribution of the less active white. This low figure is a reflection of the fact that there is a high probability of a very quiet black member in untreated and unsuccessfully treated groups.

The other hallmark is a higher average initiation rate of the more active white than that of the more active black. This is a reflection of the higher probability of a very task-oriented, active white member who does much of the talking in a group.

Overall, the mean percentages for the more and less active whites and blacks in untreated conditions form a stair-step pattern with the more active white having the largest mean contribution, followed by the

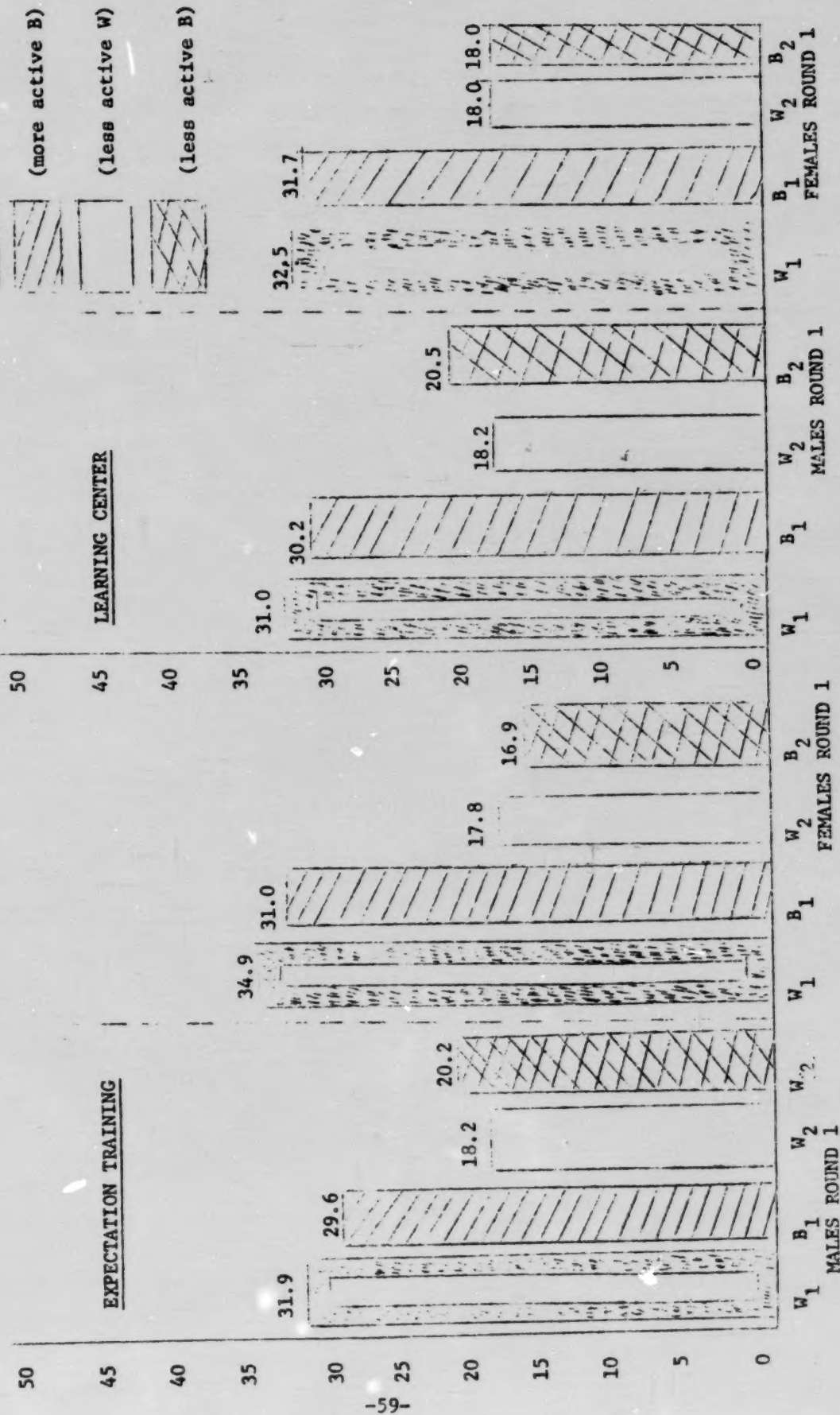
more active black, the less active white, and the less active black. It is important to note that this is not the pattern of each individual group but is a statistic based on the average of all groups in a given condition.

Criterion Task Data: Interracial Summer School

Figure I presents the average percentage of task acts for each member of the group during the first round of Kill the Bull in this experiment. Histograms are given separately for boys and girls in the two treatments.

Figure I

Average Percentage of Acts Initiated for Each Group in First Round of Kill the Bull for Two Treatments: By Sex

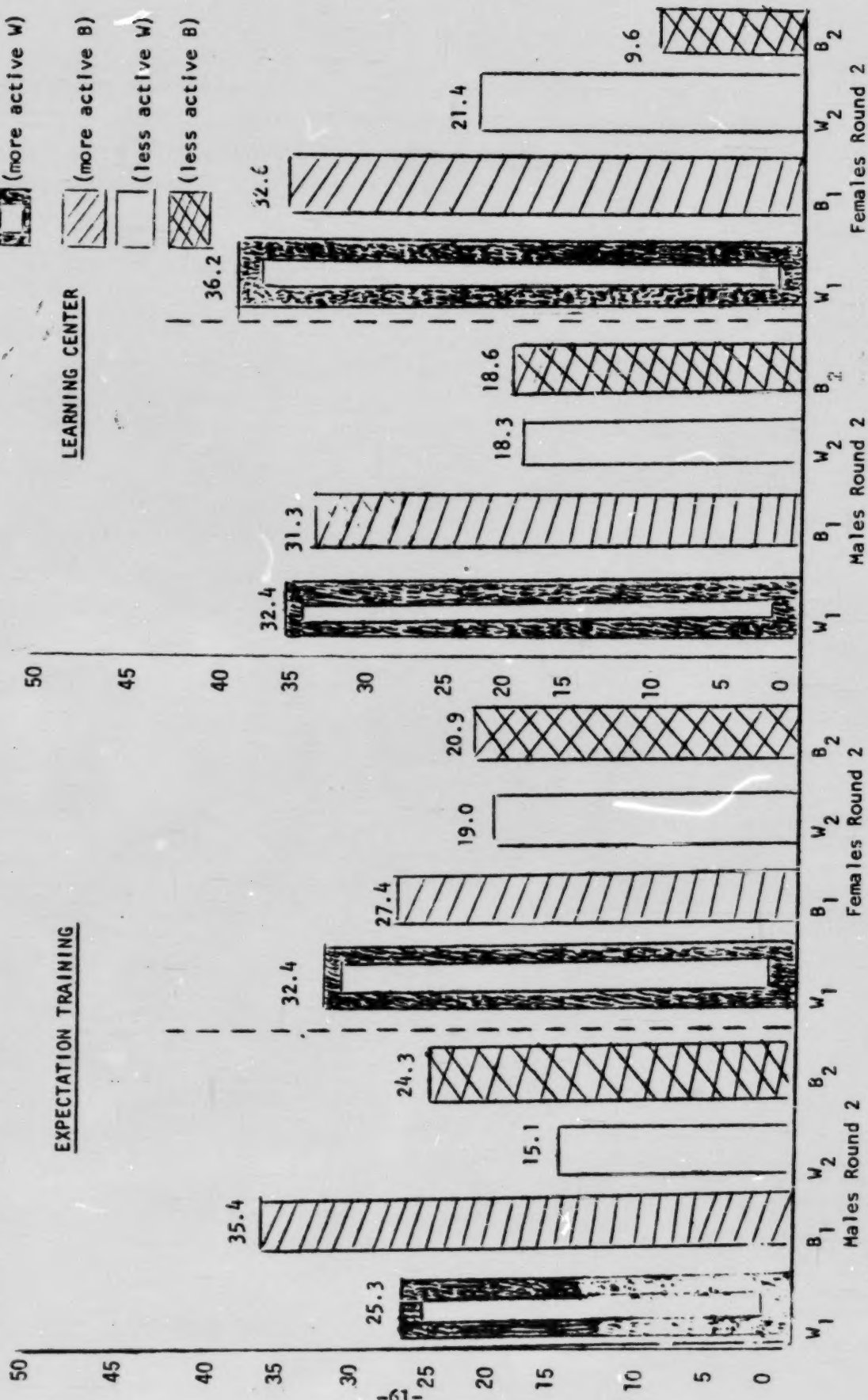


Clearly, the stair-step pattern characteristic of untreated groups is absent in these four histograms of Round 1. In both treatments on Round 1, the less active black has a higher initiation rate than the less active white among the boys and approximately equal to the less active white among the girls. The more active white shows a slight tendency to be more active than the more active black, but in three out of four comparisons the difference is only 1 or 2%. The difference between the two treatments on the first round is negligible. No sex differences appear.

Figure II gives parallel statistics for the second round of the game which was played after the classroom phase.

BEAD BULL RUMOR

Figure 11
Average Percentage of Acts Initiated for Each Group in Second Round of Kill the Bull
for Two Treatments: By Sex



There are several notable features of these histograms. First, there is almost no difference in mean initiation rates between blacks and whites in the Male Learning Center. Secondly, the five groups in the Female Learning Center show the pattern of interracial interaction disability with blacks being less active than whites. Thirdly, the black males in Expectation Training appear to be more active than the white males--the reverse of the stair-step pattern. Fourthly, there is a tendency of the average initiation rate of the more active whites in the Female Expectation Training to be higher than the more active blacks. These histograms suggest differences between treatment groups and differences between sexes as well as some interaction effect between sex and treatment in the final measurement.

Statistical Tests

A Kruskal-Wallis Rank Test for independent samples was used to see if there were statistically significant differences between treatments for the two sexes. The advantage of this test is that it does not require ~~means~~ in the cells nor assumptions of normality of the data. Furthermore, it permits examination of the relationship of the initiation scores of two members of the groups rather than considering only the probability of initiation of a given member in various categories. This test examines the overall rank order of the difference scores of 28 groups by sex in the two conditions in the first and then the second round of the game. If the scores of boys and girls in either condition are consistently higher or lower in the rank ordering than the scores from other treatment-sex categories, the value of H reaches statistical significance. Furthermore, simple inspection of the rank order of these difference scores suggest which treatment-sex category is the source of the variation.

The Kruskal-Wallis Rank Test was performed on several different dimensions of these interracial groups: More Active Black vs. Less Active Black; More Active Black vs. Less Active White; and More Active Black vs. More Active White. In Round 1, there were no statistically significant differences between treatment-sex categories on any of these three dimensions. In Round 2, the difference scores between the two black

members show a significant H value at less than .05 level. Inspection of the rank order of the difference scores suggests that females in the Learning Center were very different from all the other categories in that the less active black was very low in initiation both absolutely and relative to the more active black. Difference scores calculated on the more active white and black yield an H with a probability less than .15. Although not statistically significant, both the histogram and inspection of the ranked difference scores show the tendency for groups in the Male Expectation Training to be black-dominated. The more active black in two of the eight groups in this condition contributed 23% and 42% more than the more active white; four of the eight groups show the more active black contributing 8% or more over the proportion of acts contributed by the more active white. In contrast, the girls in Expectation Training have three groups where the more active white contributed the most acts, contributing 10% up to 27% more acts than the more active black. It should be noted that with eight or fewer groups in each treatment-sex category, it is very difficult to reach statistical significance. See Table 7.2.

TABLE 7.2

Kruskal-Wallis One-Way Analyses of Variance: Difference
in Percentage of Acts Initiated by Group Members

Group Members Used for Difference Score	Round of Kill the Bull	H	P
More Active Black vs. More Active White	1	1.316	$\leq .85$
	2	7.71	$\leq .15$
More Active Black vs. Less Active Black	1	1.31	$\leq .75$
	2	9.48	$\leq .05$
More Active Black vs. Less Active White	1	-4.55	$\leq .25$
	2	-1.63	$\leq .60$

Results of the analysis of variance of ranks above were further specified with the use of t-tests pinpointing the source of the variation. It is only necessary to do this for Round 2 data. Table 7.3 gives the t-scores and significance levels for comparison of mean initiation rates of blacks between treatments, holding constant sex and activity level; and for comparison of rates between sexes, holding constant treatment and activity level.

TABLE 7.3

Randomization Test for Two Independent Samples: Mean Percentages
of Group Initiation for More and Less Active Blacks in Round 2
of Kill the Bull

Sex	Expectation Training vs. Learning Center		
	Activity Level	t-score	p
Male	1	1.030	N.S.
	2	1.580	<.10
Female	1	-1.446	<.10
	2	2.239	<.025

Boys vs. Girls

Treatment	Activity Level		
	Activity Level	t-score	p
Expectation Training	1	1.058	N.S.
	2	.921	N.S.
Learning Center	1	-.481	N.S.
	2	1.781	<.10

Among the less active black females, those in the Learning Center were significantly less active than those in Expectation Training. This difference reaches statistical significance despite the presence of only five groups in the second round of the Female Learning Center. Several other differences fall short of statistical significance with probabilities less than .10. Two of these comparisons are between treatments; i.e., there is a tendency for the less active black males in the Learning Center to have lower initiation rates than less active black males in Expectation Training. Also, the more active black females in the Learning Center are higher in initiation than their counterparts in Expectation Training. The only sex difference which approaches statistical significance is the lower initiation rate of the less active black female in the Learning Center as compared to the less active black male in Expectation Training.

The Inactive Black and the Overactive White

A supplement to the above examination of mean percentage of task-related acts is the comparison of frequencies of very active whites and very inactive blacks. A high frequency of these two events is characteristic of untreated groups. This statistic takes into account the absolute rates of initiation while percentages only deal with the relative amount of initiation. As in previous studies, a very active member is defined as a person with more than 49 acts. A very inactive member is a person with less than 11 acts. Table 7.4 compares the frequencies of very active and inactive males and females in the two treatments on the early and late measurements.

TABLE 7.4

Frequency of Very Active and Very Inactive Initiators
by Treatment, Sex, Race, and Time

Time	Race	Very Active = ≥ 49 Acts			
		Expectation Training		Learning Center	
		Male	Female	Male	Female
Round 1	Black	3	6	11	3
	White	4	6	7	3
Round 2	Black	2	1	0	1
	White	0	2	0	3

Very Inactive = < 11 Acts					
Round 1	Black	0	2	0	1
	White	1	1	1	1
Round 2	Black	1	0	1	3
	White	4	2	2	1

In Round 1, race is unrelated to the occurrence of very active members. The frequencies are similar in each category with the exception of the Male Learning Center where there are many very active members of both races; 11 blacks as compared to 7 whites. There are no marked racial differences in the occurrence of very inactive players in Round 1. Round 2 did not contain as many groups with an overall high level of interaction; thus there are fewer very active members. The Female groups have five very active white members as opposed to two very active black members. In contrast, there are no very active white members and two very active black members among the boys. The tendency toward black dominated groups in Male Expectation Training is again illustrated by the occurrence of four inactive whites and only one inactive black. Likewise the lower initiation rate of the blacks in the Female Learning Center is indicated by three very inactive blacks and only one very inactive white.

Ratings of Leadership

A final indicator of dominance on the criterion task is taken from the questionnaire administered to the students after Round 2 of Kill the Bull. This indicator is measured by an item on who was noted as "leader" of the task. Table 7.5 examines the proportion of blacks chosen as leader by all subjects in each treatment-sex category. Once again, the only treatment-sex category where blacks did not fare as well or better than whites was the Female Learning Center where the proportion of blacks chosen was 5% less than . would be expected on a chance basis. In contrast, a black was very likely to be chosen as leader in Male Expectation Training (78%). The other two sex-treatment categories show 67-68% of the blacks chosen as leader.

TABLE 7.5

Proportion of Black Subjects Chosen as Leader by All
Subjects After Second Game: By Sex and Condition

Sex	Expectation Training		Learning Center	
	%	N	%	N
Male	78	28	68	28
Female	67	32	45	20

Differences Over Time

The second hypothesis predicted that blacks would be no less active after the classroom phase than they were before because of the experience of the cooperative curricula. A t-test was used to compare the mean initiation rate across time for blacks in each sex-treatment category. Only in the case of the Female Learning Center is there a significant decrease in initiation on the part of the less active black. There is a tendency for blacks, especially more active blacks in Male Expectation Training, to become more active over time.

TABLE 7.6

Comparison of Mean Rate of Initiation Across Time Holding Constant
Treatment, Sex and Activity Level for Black Subjects

Expectation Training			
Sex	Activity Level	t-score	p
Male	1	1.68	<.10
	2	1.37	N.S.
Female	1	1.12	N.S.
	2	.89	N.S.

Learning Center			
Male	1	.31	N.S.
	2	.54	N.S.
Female	1	.37	N.S.
	2	2.00	<.05

Results On Influence Data

The influence measure is scored independently of the initiation measure. The observers, by studying the videotapes, determine whose suggestion as to which way to move on the game board, is accepted by the group for each turn. If one person suggests the path and another does the major part of the arguing for this suggestion, then these two members split the influence score for that particular turn. Instructions for scoring are to be found in the Appendix.

The influence score has several properties which must be kept in mind in considering results. First, influence takes into account non-verbal suggestions made by group members, such as pointing out a possible path on the board. The initiation measure will not count such an act. Secondly, the absolute amount of influence is affected by the number of turns a group takes to reach the goal which varies between 9 and 16. When a player is given a score therefore, it is divided by the total number of turns the group took to reach the goal. Because this denominator can be a figure as small as "9," the statistic--percentage of influence attributed to players--has the undesirable property of wide variation. Some players may score 0 on influence. When influence scores are averaged across groups for a player, for example, "The more Active Black," the resultant means are greatly affected by extreme values of players' scores in certain groups.

The influence score is nonetheless interesting to examine because it is a unique opportunity to obtain a direct measure of influence in a free-flowing interaction situation. Theoretically, initiation and influence measures should be positively associated because expectations become expressed as higher and lower initiation rates which should lead to more and less influence in the group.

For the first round of the game there is a correlation of .79 between initiation and influence. Similarly there is a correlation of .75 between initiation and influence on the second round of the game (using a Pearson r). Both these correlation coefficients are statistically significant at $<.001$.

Table 7.7 presents the mean percentages of influence scored by the more and less active member of each racial pair in the groups for each treatment sex category, for the two criterion task measurements.

TABLE 7.7

Mean Percentage of Influence for More and Less Active Member of Each
Racial Pair: By Treatment, Sex and Round of Kill the Bull

Treatment-Sex Group		Mean % of Total Group Influence Score			
		Bl ₁	Wh ₁	Bl ₂	Wh ₂
Round 1	Male-Expectation Training	28.0	48.4	11.6	12.2
	Female-Expectation Training	35.4	40.9	7.9	16.0
	Male-Learning Center	32.6	42.1	12.9	12.0
	Female-Learning Center	37.8	40.5	5.8	16.0
Round 2	Male-Expectation Training	43.4	33.0	9.6	13.8
	Female-Expectation Training	27.8	47.8	14.6	11.0
	Male-Learning Center	39.7	38.4	12.1	9.8
	Female-Learning Center	36.8	47.0	1.4	14.6

These figures for the influence measure on Round 1 are markedly different from the equivalent figures for initiation. Overall, they suggest a pattern of white dominance in Male Expectation Training because of the high mean percentage of influence attributed to the more active white (48.4% as compared to the more active black 28.0%). Other data presented thus far do not reveal such a pattern.

Throughout Round 1, the influence data suggest a pattern of white domination not observable in the initiation data, although 10% differences in mean percentages in a cross-race comparison may not be too important considering the great variability of this measure.

The data on influence on Round 2 are generally consistent with the data on initiation. There is a tendency toward domination by the more active black in Expectation Training; Male Learning Center looks most like an "equal-status pattern," and Female Learning Center looks white-dominated.

Response to Treatment

Because the interventions were a unique experience for the students, we asked them some questions on their responses to the treatments directly following their participation on the first round of the game.

Reaction to Expectation Training

There are several pertinent questions concerning student reactions to the Expectation Training: How did whites feel about being taught by so many black peers? It will be recalled that each white student received his instructions from four different black teachers during the entire week.

Secondly, how did the black students feel about their experience as teachers? Were they anxious? Did they adopt a teacher-like role and become very concerned with their students' progress? Tables 7.8 and 7.9 give frequency distributions in response to interview questions measuring white reactions to being a student in Expectation Training and black reactions to playing the role of a teacher.

TABLE 7.8

White Students' Reactions (Male and Female) to Black Students
as Teachers, Expectation Training Only

Questions	Responses	Frequencies
How was having a teacher your own age?	FAVORABLE	29
	SOME GOOD: SOME	6
	NOT	<u>35</u>
Tell me about each teacher	ALL GOOD	17
	SOME WERE GOOD	15
	INCOMPETENT	1
	NEUTRAL	1
	NO RESPONSE	1
		<u>35</u>
Did your tutor want to learn?	YES	27
	SOME DID	1
	NOT SURE	4
	NO	3
		<u>35</u>
Would you like peer learning in regular school?	YES	27
	NO	5
	NO RESPONSE	3
		<u>35</u>

TABLE 7.9

Black Students' Reactions (Male and Female) to Teaching White Students,
Expectation Training Condition Only

Questions	Responses	Frequencies
	Absolute Total	Percent Total
124. Were the tasks hard to learn:		
YES	15	42
NO	15	42
NO RESPONSE	5	16
	<u>35</u>	<u>100</u>
125. How did the teaching go?		
SCARED AT FIRST	5	14
WENT OK OR WELL	21	60
GOT BETTER WITH TIME	6	17
DIDN'T LIKE	2	6
GOT WORSE	1	3
	<u>35</u>	<u>100</u>
128. Important for your tutee to learn?		
YES	28	80
NO	4	11
NO RESPONSE	3	9
	<u>35</u>	<u>100</u>

These frequencies supply a picture of generally favorable response to Expectation Training with a few exceptions. The interview responses fit the observations of the investigators during this period. Most teacher-student pairs worked in close and sober concentration. The black student teacher appeared mature beyond his or her years; and the white student was quiet and intense in an effort to understand the task. The student-teacher pair sat side by side and as they put together the radio transmitter, the straw polyhedra of the math task or played the spatial game of Memtogether, there was considerable touching, working together and smiling. A few black student-teachers were harsh and hasty with their white students, overtly disgusted when their pupil failed to learn quickly and correctly. A few were too hasty in their lessons rushing through in a fraction of the allotted time. A few white students appeared resistant and uncooperative to their black student-teachers and to the college-age instructors. Overall, the level of intense involvement with the tasks in the Expectation Training rooms was extremely high.

Reaction to Learning Center

To an outside observer the rooms of the Learning Center were models of desirable classroom behavior. The students appeared happy, active, and deeply absorbed in the learning of new tasks. Many of the teachers, using the materials prepared for the student teachers in Expectation Training, made up games and innovations to make the group experience even more successful. Seventy-five and seventy-six percent of the blacks and whites respectively said that they would like working in small groups like this in regular school. Seventy-three and seventy-seven percent of the blacks and whites said they would like having several teachers in the room in regular school. The proportion reporting in the interview that they liked each of the four tasks varied between eighty-three percent and ninety-six percent.

Questionnaire Reaction to Tasks

In addition to the interview, after the first criterion task measure, the children filled out a questionnaire with closed-ended questions on their response to the various tasks.

TABLE 7.10

Responses to the Four Tasks By Students in Two Treatments: By Sex

Response Frequencies

Task	Treatment	Sex	Disliked Much	Disliked Some	Liked Some	Liked Much
Mem	Expectation Training	Male	2	5	22	7
		Female	1	3	15	15
	Learning Center	Male	0	3	23	18
		Female	0	5	6	16
Malay	Expectation Training	Male	3	3	6	24
		Female	0	0	7	27
	Learning Center	Male	1	1	9	33
		Female	1	0	6	20
Radio	Expectation Training	Male	1	3	14	18
		Female	1	2	14	17
	Learning Center	Male	2	4	13	25
		Female	1	3	5	18
Math	Expectation Training	Male	3	5	14	14
		Female	1	4	6	24
	Learning Center	Male	0	0	6	38
		Female	0	2	9	16

Students in the Learning Center were less likely to report any dislike of the tasks than students in Expectation Training. The one exception to this generalization is the radio transmitter where there was a shortage of radio parts in the Learning Center. Each task was liked by most students. The most popular task was Malay which involved language learning and discussion of slides on Malaysia.

CHAPTER VIII

INTERPRETATION OF CRITERION TASK DATA

In the following three chapters we will deal with the critical questions of interpretation raised by this study. Chapter VIII will discuss the systematic results on the criterion task data. Classroom participation data will be examined for consistency with results of the criterion task data. The possibility of confounding effects of poorly controlled variables, such as age and S.E.S. will be analyzed.

In the next chapter, we will look at "soft data" compiled on each student and classroom in order to gain further insight on what appears to be strong interaction effects between sex and treatment. This examination can help us speculate on whether results are peculiar to unique circumstances of the summer school or whether they represent problems for future work.

Finally, in chapter X we will consider the problem of theoretical analysis introduced by the success of the Learning Center treatment for males. Unless we can acquire a systematic understanding of why this occurred, we will not have a theoretical basis for constructing alternative curricular treatments to Expectation Training.

Initiation and Influence Data

Examination of initiation data suggests that we have two treatments with practical potential for successful production of equal status behavior. Unlike Expectation Training, the Learning Center treatment is not grounded in sociological theory and experimentation. Learning Center males show a pattern of equal status behavior just after intervention and on the final measurement. In both the first and last measurements, the blacks were never markedly less active than the whites. On the first measurement, the girls in the Learning Center also exhibited equal status behavior. In the final measurement, however, the pattern of interracial interaction disability appeared in the five groups of the Female Learning Center.

In Expectation Training, the initiation data collect immediately after intervention suggest an equal status pattern of interaction although there is a slight tendency toward the more active white having a higher percentage of the group interaction than the more active black. There were no sex differences in Expectation Training on this first measurement. By the time we reached the last week of summer school, there was a tendency toward black dominance on the part of the male groups in Expectation Training. The female groups looked much the same as they did on the first measurement.

Results of Hypotheses

The first hypothesis predicted that Expectation Training would be more powerful than Learning Centers as a treatment both on the first and final measurement. It is clear that the data on the first measurement do not support this hypothesis because there are no significant differences on initiation data between the two treatments, for boys or for girls. On the final measurement, girls in the Learning Center showed significantly more white dominance than girls in Expectation Training. More precisely, the less active black girl in Learning Center had a significantly lower initiation rate than her counterpart in Expectation Training. If we can interpret the results of the final measurement in the Female Learning Center as a function of the weaker effect of this treatment on girls as compared to boys, we must face a critical practical problem: It may be harder to treat girls than boys. Because Learning Center female groups presented many interpretation problems, we must postpone this question until we undertake a thorough consideration of confounding effects and examination of supplementary data.

The second hypothesis predicted that the effects of Expectation Training would persist over time; there would be no significant differences between initiation on the first and the final measurement. This hypothesis was supported by the data. If anything, black initiation increased from the first round of the game to the second. The fact that there was no sign of black initiation fading out over time except in the Female Learning Center, suggests that the Cooperative Classroom has

potential as a treatment in and of itself. This question will be discussed thoroughly in the chapter on the success of the Learning Center.

To sum up, there were two major findings observable in the initiation histograms and in the results of the statistical analysis on initiation data. First, there was a pattern of equal status behavior in all the treatment-sex categories for the first measurement; the only occurrence of white dominance was in the last measurement of the Female Learning Center. Second, by the end of the summer school, there was a tendency toward black dominance among male groups in Expectation Training.

When the initiation data were analyzed in terms of absolute frequencies of acts instead of percentage of acts contributed by very active and very inactive members to the group total, these conclusions were supported. In the second measurement of the Female Learning Center there was a preponderance of very active whites and very inactive blacks. Likewise, in Male Expectation Training on the second measurement there were more active blacks than whites.

Influence Data

Although initiation and influence rates were correlated, as they should be on theoretical grounds, the results for the influence on the first round of measurement were different than for initiation rates. In Male Expectation Training it looked as if the more active white was far more influential than the more active black right after treatment. In the female groups in both treatments, the less active black had a very low rate of influence compared to anyone else in the group. Even in the Male Learning Center, the more active white had an average proportion of total influence which was 10% higher than the more active black.

The results on influence data for the second round looked somewhat more like the initiation results. The Male Expectation Training now showed a tendency toward black domination. The Female Learning Center was markedly white dominated. The Male Learning Center showed an equal status influence pattern. Unlike the initiation results, the Female Expectation Training influence results indicated that the more active white was much more influential than the more active black.

It will be recalled that in the initial discussion of the influence

measure, we pointed to some technical problems. The mean proportion fluctuates widely because the coding method often generates scores at "zero" for individuals who may have participated, but whose suggestion did not happen to become the group's final choice. Unless a group member did most of the arguing for the suggestion accepted by the group, he received no share of the influence score with the originator of the suggestion. Furthermore, this problem is exaggerated by dividing very low and very high scores by a denominator which may be less than ten; some groups reached the goal in less than ten turns.

Because the average proportion of influence is an indicator strongly affected by extreme scores, we have concluded that the measure stands in need of revision. We have therefore, not carried out statistical analyses on these data. Nonetheless, we will keep in mind the possibility that these influence data may reflect hidden patterns of white dominance directly after the intervention. Even if the influence data were to be taken seriously, they do not bring into question the results of the final measurement with the exception of suggesting that the male-female differences in response to treatment are observable in both Learning Center and Expectation Training. We need to keep this in mind as we prepare to examine other supplementary data.

Supplementary Systematic Data

Leadership Data

Students were asked to name the leader of the group following the second round of Kill the Bull. Analysis of these data support the interpretation of the initiation data given above. The proportion of blacks chosen as leader in Male Expectation Training is 78%. Likewise, for the Female Learning Center, blacks were very unlikely to be chosen as leader on this same post-game questionnaire. These data suggest that the statistical tendencies toward dominance in the initiation data were clearly observable in the post game indicator of leadership.

Classroom Participation Data

During the Classroom Phase students were typically assigned to small interracial task groups. These groups were observed in the classroom and task-related initiation was scored for each member (as long as

he or she remained with the group during the observation period). In addition, large group discussions were staged so that student task-related initiation could be scored. (See Appendix A for scoring method).

The small task groups usually ranged in size from three to five although sometimes they were larger. There was a persistent problem of students not remaining with their task groups, so during any given observation some students were not where "they were supposed to be." Task-related verbal initiations were scored for each group member during a five minute period for several days during the classroom phase. Observations were made both during the film and observation curriculum activities.

Since inter-observer reliability checks were not made on these observations, the results should only be taken as gross indicators.

In order to compare black-white interaction in these groups, it was necessary to take into account the fact they were not always racially balanced. Therefore, observed results were compared with the expected percentages of black-white contributions, given a particular racial distribution. Results, in other words, compare the observed proportion of black-white initiation, with what we might expect on a chance basis in such a group. Table 8.1 presents the mean probability of initiation observed and expected, for blacks and whites.

For each group, the proportion of initiation we would expect from the blacks and whites on a chance basis was calculated. This proportion was averaged for all groups observed in each classroom and appears under the column in Table 8.1, labeled Expected.

Similarly, the observed proportion of acts in a given group assigned to whites and blacks was calculated. This statistic was also averaged and appears in Table 8.1 as the Observed Mean Percentage of Acts Scored by blacks and whites in each classroom.

TABLE 8.1

Small Group Classroom Participation: Observed vs. Expected Mean
Percentage of Initiation by Race, Sex, Treatment and Classroom

			Race			
			Black		White	
Treatment	Sex	Room	Expected	Observed	Expected	Observed
Expectation Training	Male	5	50.9	49.6	49.1	50.4
		7	47.2	51.3	52.8	48.7
	Female	6	52.1	52.5	47.9	47.5
		8	55.7	52.5	44.3	47.5
Learning Center	Male	23	63.5	48.1	36.5	51.9
		24	59.1	56.3	40.9	43.7
	Female	20	60.2	45.7	39.8	54.3
		22	57.8	52.0	42.2	48.0

In Expectation Training, all the classrooms show rates of initiation which are very close to those expected on a chance basis. There is no sign of the white dominance indicated by the influence measure of the first measurement. In the Learning Center, observed black participation is markedly less than expected in two of the four classrooms and slightly less than expected in the other two. Conversely white participation is much more than expected in those same two classrooms (Boys' Room 23 and Girls' Room 20).

The scoring of Large Group Discussion in each classroom was analyzed in the same way as small group initiation. Table 8.2 shows Expectation Training Classrooms to be divided between an equal status pattern (Boys' Room 5 and Girls' Room 8) and a black dominated pattern (Rooms 7 and 6). In the Learning Center Large Discussion Groups, three rooms were white dominated and one (Boys' Room 24) was black dominated.

TABLE 8.2

Large Group Discussion: Observed v's. Expected Mean Percentage of
Initiation by Race, Sex, Treatment and Classroom

			Race			
			Black		White	
Treatment	Sex	Room	Expected	Observed	Expected	Observed
Expectation Training	Male	5	51.0	50.0	49.0	50.0
		7	44.4	60.0	55.6	40.0
	Female	6	49.2	61.0	50.8	39.0
		8	50.2	56.5	40.8	43.5
Learning Center	Male	23	63.6	42.1	36.4	57.9
		24	53.9	69.2	46.1	30.8
	Female	20	61.2	47.0	38.8	53.0
		22	59.3	51.6	40.7	48.4

Thus in the analysis of classroom participation data Expectation Training classrooms appeared to have been more powerfully treated because they appear either equal status or black dominated, while Learning Center classrooms were much more likely to be scored as white dominated.

Age and SES Differences

When the population of the Center was originally described, the strong social class differences between the black and white students were documented. Although there was some overlap on our total SES score, there were many more high SES whites than blacks and many more low SES blacks than whites. The question to be considered here is whether or not criterion task groups where the whites were markedly higher in SES than the blacks were more likely to be white dominated than groups where the SES difference was smaller. If it turns out to be the case that SES is operating as a status characteristic in addition to race in such a way as to exaggerate results, then it becomes important to examine the relative frequency of such groups in the four treatment-sex categories.

For this analysis we will consider only the final measurement because this was where we observed some differences between treatments and sex groups. In each group, the total SES score for the black members was subtracted from the total SES score for the white members; a difference score was thus assigned to each group. Groups with a difference score of ≤ 13 were called "Low SES Difference Groups." Groups with a difference score of 13 or greater were called "High SES Difference Groups." It should be remembered that a High SES Difference Group is one where the whites are markedly higher in SES than the blacks.

Table 8.3 examines the mean percentage of acts initiated for the more and less active member of each racial pair for groups "high" and "low" on SES white-black difference. Comparison of the mean percentages in each column of the table does not reveal any systematic difference in mean percentage of acts initiated according to the SES composition of the group. As a matter of fact, groups where the whites are markedly higher on SES have a higher probability of task initiation for the more active black than for groups where the SES differences are less marked.

TABLE 8.3

Mean Percentage Acts Initiated for More and Less Active Whites and Blacks by White-Black SES Differences in Groups

SES Differences	Mean % Acts Initiated			
	Bl ₁	Bl ₂	Wh ₁	Wh ₂
Low (Wh-Bl. = <13)	29.93	19.71	30.50	19.50
High (Wh. - Bl. = >13)	32.90	18.38	32.07	16.9

Since there is clearly no relationship between SES composition of the group and rates of initiation by black and white members, it is not necessary to push this analysis further. This is an important finding in itself because natural school populations contain strong SES differences which are correlated with racial differences. If, as appears in these data, treatment on the basis of race, is sufficient to prevent the operation of SES as a status characteristic, or if it is the case that even in untreated groups, SES has no further effect beyond the racial difference, then possible treatments are more practicable than they would be otherwise.

Pursuing the same logic, we turned to age differences within criterion task groups. Age was not well controlled in this population, varying between 10 and 13 among the students involved in the final measurement. There was clearly a significant mean difference in the

ages of the two races with the whites being older than the blacks. The average age of the whites in the final measurement was 11.91 while the average age of the blacks was 10.79. Parallel to the SES analysis described above, the total age of the blacks was subtracted from the total age of the whites for each group. In this case the distribution of age differences was divided into three parts: groups where the blacks were older or where there was no age difference; groups where the total age of the whites was one year greater than the total age of the blacks; and groups where the total age of the whites was more than a year greater than the total age of the blacks. Table 8.4 carries out an analysis parallel to that in 8.3; the mean percentage of acts initiated is examined according to the degree of age difference between the races in each group.

TABLE 8.4

Mean Percentage Acts Initiated For More and Less Active Blacks
and Whites by Black-White Group Age Difference

Age Differences	Bl ₁	Bl ₂	Wh ₁	Wh ₂
Blacks Older or No Age Difference N = 13	33.27	19.15	21.85	15.23
Whites-Blacks = +1 N = 7	30.71	20.29	31.86	16.57
Whites-Blacks = > 1 N = 10	26.60	13.70	32.40	17.90

Table 8.4 shows a strong positive association between white dominance and groups where the whites were older than the blacks. Conversely, groups where there were either no age differences or blacks were older were more likely to be black dominated groups.

In Table 8.5 we proceed to examine the distribution of groups in the three Age Difference categories across Treatment-Sex categories. If groups with markedly older whites are collected in one treatment-sex category rather than another, they could certainly confound our analyses of differences between these categories. Fortunately, there is an almost equivalent distribution of groups of differing age composition in the treatment-sex categories with the exception of the Female Learning Center where three of the five groups have whites markedly older than blacks.

TABLE 8.5

Number of Groups with Three Degrees of White-Black
Age Differences: By Treatment and Sex

Sex	Treatment	Age Differences		
		Wh-B1 = <1	Wh-B1 = 1	Wh-B1 = >1
Male	Expectation Training	3	2	2
Female	Expectation Training	3	3	2
Male	Learning Center	3	2	2
Female	Learning Center	2	0	3

Although this distribution of groups with differing age composition appears similar across treatment groups, there is still one further possibility of confounding effects stemming from black-white age difference. If we hold sex constant while examining mean percentage initiation in groups where the black-white age differential varies, we can see that there is an interaction effect between sex and black-white age difference. Table 8.6 shows that in the groups where there is no age difference or the blacks are older, the black males had much higher proportions of initiation in their groups than did black females in their groups. Put another way, the male groups were likely to be black dominated while the female groups were more in the equal status pattern. In contrast, in groups where the whites were older, the female groups were very likely to be white dominated, but the male groups were more likely to be equal status.

TABLE 8.6

Mean Percentage Acts Initiated According to Race, Activity Level . .
and Sex for Groups of Two Types of Black-White Age Differences

Age Difference	Activity Level	Race	Sex	Mean % Acts Initiated
Wh-B1 = <1	More Active	Black	Male	28.5
			Female	29.2
		White	Male	21.8
			Female	30.6
	Less Active	Black	Male	26.3
			Female	18.2
		White	Male	15.17
			Female	21.4
Wh-B1 = >1	More Active	Black	Male	32.5
			Female	27.2
		White	Male	33.0
			Female	38.4
	Less Active	Black	Male	20.25
			Female	11.20
		White	Male	16.0
			Female	23.0

Why should black-white age differential produce different results for males and females? The results for female groups look as if they could be more simply explained by the operation of the status characteristic of age in addition to the effects of race (which we presume was probably still operating at least in the Learning Center). In the male groups the pattern of white dominance had presumably disappeared due to successful treatment. If age alone were operating, then male groups with older whites should be dominated by whites, but as Table 8.6 shows, these groups are likely to be equal status.

In the next chapter on the observational data collected on the boys' and girls' classrooms, we will describe the marked differences in physical activity in these sex-segregated classrooms. Many observers commented on the high level of physical activity and physical interaction in the boys' classrooms. There were also comments on the evolution of a physical "pecking order" in these male classrooms. What complicated this phenomenon of physical dominance as a basis for status among the males, was the fact that the black boys were much more athletically inclined than the white boys who were an unusually sedentary group. The confusing pattern of sex differences in Table 8.6 could be explained if we assume that (1) race is not operating as a status characteristic for males; (2) physical dominance is operating; (3) age is operating as a status characteristic. Furthermore, age and physical dominance interact; also, the blacks are more physically dominant than the whites. Thus when the blacks are the same age or older, their physical dominance becomes quite important; and the groups are thus black dominated. When the whites are older, black physical dominance works one way and white age neutralizes it so that the resulting pattern is equal status.

Of course, this is highly speculative, but the effect of physical dominance is a most interesting one to examine both in the context of the "soft observational data" and in the context of interracial relations at the Center. Insofar as the interpretation undertaken in this chapter, we can see that the effects of age composition of the criterion groups interacting with sex, helped to build up sex differences in these data. For example, one way to understand the pattern of white dominance

in the second round of the Female Learning Center is through the fact that three of the five groups had older white girls in them. In Expectation Training, the presence of physical dominance as a social principle among the boys may have helped to produce tendencies toward black dominance in the final measurement for the male as contrasted to the female groups.

Degree of Treatment

In previous versions of Expectation Training, we had only used one task creating a general Performance Characteristic consisting of (1) competence in building the radio and (2) competence in teaching the radio. We had tried to make a very strong treatment in the summer school experiment by having each black student learn four tasks and teach each of these four tasks. Theoretically, we had no grounds for knowing whether or not adding elements consistent with competence on the general Performance Characteristic would make a stronger treatment in mediating the effect of race as a diffuse status characteristic. As it turned out, some of the black students did not reach a criterion level of competence on some of the tasks; some did not have white students to teach on certain days; and some required assistance from the college-age instructor in teaching the task. If it is true that the strength of the treatment of expectations lies in how many abilities each black student is able to demonstrate high competence, and on how many tasks each white student experiences a highly competent black, then the results of the first round of Kill the Bull might be affected by a variable we shall call Degree of Treatment.

At the beginning of Chapter VII an overall degree of treatment score was described. Briefly, this score reflected to what degree a black student in Expectation Training had competently taught the four tasks to four white students. The score could be lowered because of assistance by adults he or she received or because of absences of white students. Parallel to this degree of treatment measure for blacks, there was a degree of treatment measures for whites. Theoretically, each white should have experienced four competent black teachers on the four lessons for each task. This score was computed in the same way as the black student's score; if a white's teacher had to be assisted by

someone else or if he missed a lesson, he received a lower score than if he were taught by a black, unassisted. The score for degree of treatment for whites has many weaknesses due to incomplete records and so should be considered tentative. Similarly, there are some missing data with respect to blacks, but not as much as for whites.

Table 8.7 gives the cross-tabulation of degree of treatment scores with rank on the first round of the criterion task. Students of either race with scores ranging between 9.0 and 11.0 were classified as having received a "High" degree of treatment. Students with scores ranging from 5.0 to 8.75 were classified as having received a "Low" degree of treatment.

TABLE 8.7

Cross-Tabulation of Rank on First Round of Criterion Task and Degree of Treatment Score: By Race

Race	Degree of Treatment Score	Rank on Criterion Task			
		1	2	3	4
Black	High	2	3	5	6
	Low	2	7	4	3
White	High	7	2	3	1
	Low	5	4	3	6

This table reveals no association between degree of treatment and rank on the first measurement. In retrospect, this is not surprising because of the public nature of the teaching. There was a stunning social effect of being in a room surrounded by pairs of blacks teaching whites. Regardless of one's personal experience, the impact of observing black competence and authority of knowledge was extremely powerful. In future applications of Expectation Training, carrying out the teaching and learning situations en masse would seem a particularly effective form of treatment.

Generalizability of Results

After careful examination of initiation and influence data as well as supplementary classroom data, and after examining the possible effects of poorly controlled variables such as age and SES, we can come to some conclusions about the nature of the interracial interaction for this sample. By the time the final measurement was taken, the groups which received Expectation Training were showing either equal status interaction or a pattern of black dominance. There was little evidence of white dominance in any of the measurements taken after the start of the Classroom Phase. The Learning Center groups on the criterion task varied according to sex. The males showed consistently equal status behavior, although the classroom measures suggest that one of the classrooms actually had a tendency toward white dominance. The females, although showing equal status behavior on the first measure, showed white dominance in the classroom data and in the final round of measurement.

Although SES was not well controlled in this study it does not appear to have confounded the report of treatment effects. The effects of age are not as clear. Age appears to have acted as a status characteristic in those female groups where the whites were older than the blacks. This may have contributed to some of the sex differences observed in the data. The fact that every black student in Expectation Training did not have the opportunity to teach four lessons unassisted on all four tasks did not appear to have any association with that student's rank on the criterion task.

Self-Selection of the Population

The very "success" of the Learning Center for boys, contrary to our predictions, leaves open the question of what a "no treatment control group" selected on the same basis as students at the Center would have looked like. With a severe recruitment problem, it was simply impossible to recruit enough students for this purpose; we have relied on previous studies for data on untreated groups. Using these earlier data as a baseline comparison for initiation data in groups exhibiting Interracial Interaction Disability, we have examined criterion task data for their resemblance to these earlier groups.

This leaves us open to the criticism that there never was a problem of interracial interaction in the self-selected sample of students of the Center. There is really no rigorous way to deal with this criticism. We can only point to the inflamed state of interracial relations in the junior high school in which we conducted the study; the population of the Center had many of the same elements as ordinarily attended this school. We can also point to the powerful and persistent nature of white dominance evident in four previous studies of our own as well as other studies in the literature. Finally, in the less systematic and more qualitative data presented in the next chapter and in the chapter on interracial relations, it can be seen that relations between the races were problematic from the outset of the experience; these two populations exhibited marked cultural differences, an inability to interpret each other's behavior, and finally, fearfulness on the part of the white students in their interaction with black students.

In order to assess the generalizability of Expectation Training in the field it will be necessary to administer it on a less self-selected population. It would be highly desirable to use some of that sample to run a simple criterion task baseline study in order to insure that untreated groups still give evidence of the operation of race as a status characteristic. This study has shown that mass treatment is feasible and that the effects of treatment can persist given a special cooperative classroom environment.

Sex Differences in the Data

The problem of sex differences in these data is undoubtedly one of the most difficult to interpret. The critical issue is to decide whether these differences are due to unique circumstances of the Center or whether they reflect an underlying problem, i.e., it may be more difficult to treat girls than boys. To sum up where the interpretation has brought us to this point, there are some analyses which point to features of the data unique to the Center. First, there was the problem of only having five groups in the second round of measurement in the Female Learning Center. By chance, three of these five groups had much older white girls who proceeded to dominate the task. Secondly, there

were so few white girls compared to black girls that on the first round of the game, some black girls did not play. Others were allowed to play with extra black boys. Thus on the second round, some of the very inactive black girls may have been inactive because they assumed the others to be more competent, having played the game before. The black girls who had played with black boys in the first round were very quiet in those games and may have concluded by the second round of the game that they were incompetent at this task.

Even in light of these constraints, it is not easy to dismiss the sex differences as unlikely to recur. We must answer the following question: If there were peculiar problems with the criterion task in the Female Learning Center, why were the data on classroom participation also white dominated? Even in Expectation Training, there were slight tendencies toward white dominance just after Expectation Training for the girls.

The "soft data" in the next chapter contribute much of the basis for our conclusion that there are important differences in the way the cooperative classroom affected boys and girls. We will examine what these data can suggest about differences which should be taken into account in planning future classrooms.

In conclusion it is important to note that the interaction between sex and treatment became visible following the classroom phase and not immediately post-treatment. Thus, in examining these classroom data, the central question is one of how the cooperative social structure of the interracial classroom affected boys and girls differently. It is not a question of trying to find out why race functions differently as a status characteristic among boys than girls. As far as we can tell from these data, the construction of a General Performance Characteristic, can be used to mediate the effect of race as a diffuse status characteristic for girls as well as boys. In other words, Expectation Training, in the short run appears effective for girls as well as boys.

CHAPTER IX

SOCIAL INTERACTION IN AN EXPERIMENTAL ORGANIZATION

An outsider visiting the Center during the treatment phase would have seen in the Expectation Training wing of the building, serious, young black boys and girls intent upon using their teacher manuals to communicate skills to their white students. The white students were, by and large, eager to learn new skills and were attentive pupils. Films made of this scene reveal physical closeness and touching; teacher and student sat side by side. It took two pairs of hands, for example, to put together the straw and pipe cleaner polyhedra for the math task.

Interviews with the young teachers often revealed a serious concern with how well their white students learned.

Pier, he wanted to learn. Pier can be fun teaching.

Karen was a little hard to teach; didn't want to respond. Some of the young teachers hurried students through their paces much too fast. A white student noted this in response to an interview question regarding whether or not his teachers wanted him to learn:

Yes, because if I learn faster they can get out faster. They would also be praised by their supervisor.

Another white student described his teacher:

He is "fun, good teacher--knew his subject very well and wasn't mean."

Inexperienced young teachers were sometimes impatient with their students:

Sam would get mad because I couldn't remember some of the names of things.

Loretta got angry at first, but everything worked out on the second day.

The Learning Center wing looked like model classrooms with a small student-teacher ratio. The girls' classrooms were particularly pleasant and cooperative from the point of view of the staff. These classrooms will be described in more detail in the next chapter.

With the beginning of the Classroom Phase, interaction became quite free. The students reacted to the change in staffing with restlessness

and anxiety. Black students in the Expectation Training condition were unhappy because it meant they would no longer be working with the adult tutors to whom they had become very attached. They continued to mourn this loss throughout the school session.

The teaching teams assigned to the cooperative classrooms in Expectation Training were convinced that the students had been allowed to get out of hand by the non-credentialed young staff. Apparently, two weeks was a sufficient period of time for norms and expectations--typical of developed organizations--to emerge. As a result, the response to any change was resistance and anxiety. This was to continue throughout the summer, so that attempts to change patterns of classroom behavior of teachers or students, proved quite futile once a new phase had begun.

In a lengthy staff report, one teacher in the Learning Center described a transition:

At 10:10 we had recess. At 10:30 snacks. At 10:40 the name tags were passed out and the boys were told they would cross the hall to a new set of teachers for the remainder of the morning. It took approximately 10 seconds for bedlam to ensue. Chairs fell on the floor, elbows poked, fingers fidgeted, bodies moved and remarks flew. The room had suddenly become chaotic. What had been calm, cooperative, interested boys suddenly regressed to the first day of summer school. For awhile we just stood by drowned out by the commotion. After a few seconds I rushed forward to one of the tables of boys and asked point blank if they were acting this way because they were afraid of what was going to happen to them. At once all eyes registered; and with what I interpreted as relief, they were able to answer "yes." The unknown was making them nervous. It was compounded by the separation from those adults they had come to trust. (Two of us had been with them from the beginning.)

Once this feeling was allowed to come out and be acknowledged, they were ready to listen. It was then we were able to ask them to live up to their good behavior and cooperativeness which we had come to enjoy. We assured them we would welcome them back on Monday morning at 9 a.m. and sent them off. As soon as we had changed, two boys rushed back into the room to shout orders to our new class. The message was: "You'd better all treat our teachers

good! or else!" We shooed them out!!

Our new boys arrived with defenses high. They clustered in almost totally segregated groups with the largest, high powered competitive group at the back of the room all fighting for chairs and a place at the table. Again, there was foot tapping, pushing, punching, jeering--the feelings were highly charged.

After looks of dismay, we quickly laid the ground rules, reannouncing the fact that this was to be a cooperative school and that we would have many fun tasks to do only if we could all do them cooperatively. After asking if they were in their groups, we quickly reassigned them to tables of four, integrated as well as possible.

Again, the high powered group reacted even after being divided, and when the cooperative task was laid out before them it was from this group that we heard in no uncertain terms that one half of the table was having nothing to do with whites on the other side. Hazel and I instinctively attached ourselves each to one end of the table and allowed them to vent for a few seconds. Then once again they were told that this was a school for cooperation, etc., and in order to proceed they would need to begin to cooperate. A few minutes later two of the highly charged boys from the first side of the table became involved in a physical conflict on the floor between themselves, and with the separation of these two the activities of the hour lurched and rolled into action. (Pecking order was going on, I guess.)

There were remarks like "we don't like these teachers; they think they're too cute!" But as we began to respond to their needs (passing them glue, paste, etc.) they came to some sort of an understanding, and the first day of change had come to an end with much gained, if not conquered.

How the School Became "Black Turf"

As the Classroom Phase progressed it became obvious that the Interracial Center had, for the most part become "black turf." This was especially noticeable in the Expectation Training classrooms. Black children were socially dominant. They expressed themselves forcefully with respect to curriculum tasks, interracial relations, on other students' task behavior and on informal social relations in the class. They felt very much at home and contributed to the tasks in their own cultural style. The teachers seemed quite involved with the black male

students; white males were sometimes left out of classroom interaction.

The social power of black students was well documented by the responses to the sociometric question, "Who in this classroom is the most able to get you to do things?" In response to this question, 81.6% of the black students chose a black student and 78.3% of the white students also chose a black student. If we combine students selected as first, second and third choices on this same question, and compare observed vs. expected proportions of blacks and whites choosing within their own race, we can see that in each treatment-sex category, blacks chose within their own race more than expected on a chance basis and whites chose within their own race less than expected.¹

TABLE 9.1

Proportions of Students Choosing Within Their Own Races for First, Second or Third Choice of Social Power Criterion: Observed Vs. Expected for Each Treatment Category

Treatment	Sex	Race of Chooser			
		Black		White	
		% Choosing within Race Observed	% Choosing within Race Expected	% Choosing within Race Observed	% Choosing within Race Expected
Expectation Training	Male	90.5%	45.2%	47%	54.8%
	Female	70.6%	54.9%	15%	45.1%
Learning Center	Male	77.4%	62.8%	14.2%	37.2%
	Female	92.9%	63.3%	27.2%	36.7%

¹ There was no relationship between the probability of being chosen as "socially powerful" and rank on the criterion task. This was partly because members of the game came from different classrooms.

Blacks were often quite dominant in small groups to such an extent that teachers sometimes felt they had to intervene.

In several of the groups one or two people seem to completely dominate. Kevin W. (Bl) has done this with his group. He dominates in size, loudness of speech and consistency of contributing ideas. As a result some of the other group members might visit other groups or wait until the teacher insists that Kevin give someone else a chance to participate.

In contrast, when a white student who would ordinarily dominate a classroom group tried to dominate in one of these classrooms, he would be strongly sanctioned by his black peers. A teacher describes one such student;

Greg M. (Wh) would try to make all the decisions for the group without taking into account other students' suggestions or ideas. Consequently, a couple of the students wanted to quit or not work with the group. Many students have refused to work with him because of his action.

Greg M. responded to Expectation Training on the interview by saying he didn't like his black teachers because they gave him "an inferiority complex--they know all the answers and you don't. They boss you around on the playground."

In a conversation with a teacher, a student reports in the weekly classroom newspaper:

Teacher: Do you think the white kids don't speak up enough about things?

Student: Sometimes, because if I want to do something, they wouldn't say anything. Then I give them a chance to do something.

In a girls' Expectation Training classroom a black observer comments:

The post-break group in Room 6 is a complete change from the pre-break group. (Observer is referring to the change of classes between the two curricula which took place each morning.) There are four basic reasons for this and their names are Karen H. (Bl), Naomi G. (Bl), Ester P. (Bl) and Jacqueline W. (Bl). Any one of these young ladies could present a problem in the classroom, but four of them compound the problem. Naomi and Jackie seem to be enjoying the activities and the summer school in general. However, their cooperation depends upon the particular

activity and the specific mood they were in. This is particularly true with Jackie. (She can be quite cooperative one moment and the next, quite sullen and angry. This behavior from Jackie especially, is quite verbal in effect and the class sees it constantly. Although the class as a whole is used to this type of behavior now, it still seems to affect the class entirely. Although Jackie and Naomi may present problems, I believe they can be quickly solved since both are basically mischievous and seem to enjoy summer school very much.

Karen H. also seems to enjoy the school, but when Naomi or Jackie "act up" Karen just might also "act up." Karen by herself is vociferous, but I don't believe she is that much of a problem. Perhaps she is seeking attention; I don't know.

Even in the Female Learning Center, where the criterion task showed white dominance, a teacher comments as follows:

Black students seem to dominate leadership roles. This is because black students are in the majority and are therefore not hesitant to take the lead in any project.

Wanda G. (B.) dominates her group in making decisions and acting as a spokesman for the group. She is accepted by the black students and tolerated by the white students.

Some of this social dominance was expressed physically:

James G. who had walked into class the first day and said loudly, "I don't want to teach no white kids anymore." Upon being assigned to a group was described by his teacher: "He will walk up to a table where boys are seated and tell someone that that is his chair. There is no reason for this except that James had decided it that way. He is so aggressive and determined that the other boy, if he is mild-mannered and easy going, will simply move out of the chair.

On the playground, the black students dominated the equipment and games. When the staff tried to intervene, the students would explain that the whites were "no good with the ball" and would "mess the game up." White students and staff were unhappy with this situation. We had realized that this was likely to happen and had planned a non-competitive physical education curriculum called Body Movement. Despite the fact that many of the children reported enjoying this activity, the staff showed great resistance to leading in this program. We could not

overcome this resistance and finally had to give in on this point and drop the activity. If we had prepared some of the college-age instructors to conduct this curriculum, it would undoubtedly have been a success and would have eliminated the dominance of one race on the playground.

On Fridays when there was opportunity for classroom discussion, the topics were often black topics. The ideological flavor of some of these discussions was much influenced by the college-age instructors some of whom were now assisting in the classroom. One such discussion led by a college student is described below:

Ray L. led a discussion with these boys in Room 7. Benjamin S. (Bl), James G. (Bl), Kevin W. (Bl), Gordon B. (Wb), and John G. (Wb). They talked about black people dressing their hair: which is better, a natural or a Lord Jesus? Another topic of discussion was whether certain black leaders really help ordinary black people. Kevin W. (Bl) said that some black "leaders" collect money just to buy good cars for themselves. "They should be spending that money to help us!" said Kevin.

These college-age tutors, all very attractive young black people, were reassigned after the intervention, some to the research staff and some as assistants in the classroom. They were the focus of much student admiration and attention, helping to contribute to the general tone of black dominance of the school.

The Question of Authority

The staff was warm and non-punitive in their roles as authority figures. When a student was sent to have a talk with Dr. Favors, the atmosphere was one of friendly counsel instead of sanction. If a student didn't want to stay in his task group, he floated about the classroom, sometimes in the corridor and was often found in the library. Staff and students were somewhat divided in their response to this state of affairs. Some children really appreciated the kindly warmth of the adults, but some felt there should be more control of the lively and outspoken student. Some staff thought that the atmosphere was quite ideal, allowing students the fullest expression of themselves. Others, including the black college-age observers felt that authority was entirely too lax.

In the school as a whole, the students expressed no hostility toward the Center and spent little time in trying to evade rules and regulations. To those familiar with inner city schools, it was quite remarkable that the expensive equipment was neither stolen nor broken; there was no writing on the walls; no teacher reported feeling physically threatened; even the library books were all returned undamaged. This may sound like negative evidence but was truly indicative of how the activities of the summer school occupied the entire energies and attention of the students, providing them with enough interest, success and satisfaction to make these other activities unnecessary.

In the newspaper of one of the girls' rooms in Expectation Training, an article describes Dr. Favors' use of authority:

I think Dr. Favors is a real nice person to have the job as principal. Here is my reason. One morning a few of us were supposed to be rehearsing a skit in a room. After a while we decided to have some fun. We were riding each other around on a milk cart when Dr. Favors came along.

I thought we'd be in for it, but he just said that he didn't want anyone to be afraid of him, and he didn't want us to do it again.

Isn't that a good way for a principal to be? I know I won't goof around with carts in the hall again.

Mrs. Gebhard, the Co-Director, reports on an incident of aggression on the part of some students and Dr. Favors' response:

Several white girls complained that a black girl constantly pulled their hair and jabbed them in the ribs. They tried ignoring her but really wanted to try to understand her and why she reacted this way with them. As this was drawn to the teacher's attention the atmosphere cleared somewhat, but then Dr. Favors talked with the black girl and the teasing stopped immediately. The white girls told us they'd had several beautiful days. He has been very effective dealing with the children.

Many students commented that the best thing about the school were the teachers and assistants. One commented specifically that unlike regular school, you never got "popped with a yardstick."

This school is different from the regular school. It's better because we don't get popped with a yardstick. I like the free snacks, no report cards and the \$5 for perfect attendance.

Black observers in the classroom, particularly in one of the Expectation Training classrooms, felt that the lack of firmness was undermining benefit from the curriculum, particularly for the black students.

It seems to me (though I'm not really qualified to judge teacher performance) that the problem is a lack of authority on the part of the head teacher in this room. He seems to have his own ideas on how the kids should be handled, which I respect; but the kids are not ready for the responsibility he has given them. They look upon his quiet manner and lack of insistence for discipline as a sign of weakness and therefore they take advantage of him. It's not a real serious problem as far as the running of the project, but I have a feeling it might influence the interaction between the white and black students in this way: First, the white students see that this teacher is a pushover. Therefore, they take advantage of him whenever possible. The black students picked this up immediately, and in order to disassociate themselves from his image and manner, they not only take advantage of him but create problems and willfully disobey. Because of this, I feel that the black students are not participating as well as they could even if the results do not show it.

Room 5 Male Expectation Training.

In one of the girls' Expectation Training rooms a different observer comments that four black girls are participating on the curriculum much less actively than they would if it were not for their alienation from one white teacher who was quite permissive with them. He describes the relationships:

Mr. S. will discipline a pupil, but the pupil will not obey at times and will give some lip service back to Mr. S. The next step in my estimation is where the key lies. Instead of talking to the children as children, that is, keeping a firm disciplined tone but addressing them as what they are, children, Mr. S. talks back to them word for word as if they were adults.

Theme of Cooperation

Although the picture drawn from the notes and observations thus far may not appear very harmonious, the theme of cooperation was taken very seriously by the students and teachers. Children often commented on "how the cooperation was going," wrote about it in their newspapers; and teachers talked frequently about the subject. Of course, sometimes when teachers and students talked about cooperation one wonders whether they meant, "You cooperate, or else!", but many times they seemed to be consciously working toward this idea.

In the newspaper of Room 7 (Boys' Expectation Training) there was the following discussion of cooperation:

Students in Room 7 talked about cooperation last week and they started by working out a definition. These are some of the definitions given: James G. (B.) said "agreeing with somebody else," George G. (W.) said "working and helping other students doing stuff with others," "working together," "getting along."

One person said, "It means don't give, don't take, just do what you're told--obey the person in charge." There was objection to this last definition and after some discussion it was revised to "working together."

Why is cooperation important? Pier (W.) said, "The human race wouldn't be what it is without cooperate." All agreed that war between nations is the antithesis of cooperation.

When do you feel like cooperating--with what kind of person? "not with someone who doesn't cooperate with me," "a nice easy-going person, not a bossy person." "with someone who doesn't grab." "If I'm not interested in a project, I won't cooperate."

Is there more cooperation here in the Observation Curriculum or in Film-making?

More in film-making	2
More in Observation Curriculum	6
About the same	1

Last week there was more cooperation during the treasure hunt than during the other activities. Why?

--because we had to make it work; we all had ideas and we had to put them together. We cooperated more because we liked it more. We liked the

teacher. Decoding isn't a good cooperative activity because other kids would copy; it was more fun working alone. Students didn't cooperate making collages because they weren't interested in making collages; they would rather watch a checkers game.

The girls were earnest and moral in their newspaper discussions of cooperation:

Happiness is having people together and not against each other--Joy's group--Room 8 (Girls' Expectation Training).

When we do things we share it and we cooperate with each other. This is the most cooperative group I have ever been in.

Konstance S. (Bl)

We work all the films together and take turns working the movie projectors and editor and the movie camera. We have lots of fun doing that.

Ourania C. (Wb)

An editorial from the newspaper in Room 6 (Girls' Expectation Training) describes the cooperative nature of the cat's cradle string games which were popular among the girls (a student-inspired activity).

Strings and Cooperation

Strings have helped us cooperate a lot. We've been doing different tricks with them. We were working together and teaching each other the tricks we learned. They were fun. We got to know each other by doing this. We learned we can get together if we really try.

We've learned from this school how to cooperate better and to do things better with other kids. We've learned to like people we didn't like before. We've learned to do things we've never done before with kids we never knew before!! We have learned a lot since the beginning of summer school. Most of us have made new friends and learned to cooperate with each other. We suggest that in the future more outside activities are made available for better cooperation. I hope anyone who can't understand other kids should come to this school next year.

Effects of Expectation Training on Boys

There was a very special quality of the interaction reported in the two boys' classrooms receiving Expectation Training as compared to the two boys' classrooms in the Learning Center. This was aptly described by a classroom observer:

Room 7. Although there seems to be some voluntary interaction between white and black students in this room, most of the relations are still fairly strained. The black kids, I think, feel they must prove to the white kids that they do not need or desire friendship from them. There are no real problems such as fighting among them, but when they are forced to work together, tense situations sometimes arise. For example, many of the white students still tend to feel superior to the black children, but the black children refuse to be bullied; therefore, you find a lot of bickering and verbal fights between the races. I have to point out, however, that in this room a lot of the problems are caused by the black students. They seem to have to prove to the white students that they are tougher. So we find a lot of bullying by the bigger black students.

I talked to some of the black students about this and they seem to all agree that they liked most whites but they first had to prove that they were able to beat them up if they got out of hand.

In the Learning Center classrooms there was also the evolution of a physical pecking order with blacks usually ranking high, but here the relationships between the races did not develop as much through this kind of open, frank verbal confrontation as through the teacher's constantly desegregating groups; small interracial groups of boys often talked about personal matters in preference to curricular tasks.

These differences in quality of interaction in the two treatments raise the question of what is the desired model of social relations. Even if expectations are effectively treated, the pattern of social interaction remains to be worked out. Underlying feelings appear to have been brought to the surface much more strongly by Expectation Training resulting in more of an emotional confrontation. Both blacks and whites really seemed to "come to grips with each other," finally

realizing they could work it out despite many underlying negative feelings. The experience was probably the hardest on white males who would ordinarily dominate a classroom.

Sex Differences in Response to the Classroom

It will be recalled in the last chapter that we were left with the major interpretation question of whether or not girls are harder to treat than boys. Consideration of this more clinical data suggests that there is an underlying problem in the female classrooms which might well prove to be characteristic of other schoolrooms as well as those in the Interracial Center. The boys' classrooms were far more physical than the girls, with the question of a physical pecking order a much more important issue. This was suggested in our interpretation of the different way age operated in male and in female groups in the last chapter, but the most casual observer at the Interracial Center would comment that the behavioral and stylistic differences between male and female classrooms looked greater than the differences between blacks and whites. The boys' classrooms presented a jumble of noise and activity compared to the quiet buzz of earnest, small groups in the girls' classrooms. A teacher in a staff report compares boys' and girls' classrooms:

I have found the girls more congenial than the boys' group. There is virtually no occurrence of insulting one another and the teasing that does occur is very friendly. They are less hyperactive also. The girls seem to be at ease with one another across racial lines. They do not cluster separately in their seating arrangements and play, although we have not assigned them as yet. The white girls seem more quiet both in a motor and verbal sense than the black girls.
(Room 22 Learning Center)

Girls, particularly white girls, were more involved with the curriculum.*

* In their newspaper articles, the girls (both black and white) report class activities in enthusiastic detail. They were also much more likely to write favorably about interracial cooperation.

Teachers were asked to rate each student as to their level of participation in the film and observation curricula. These ratings from one to five, did not turn out to agree with the same overall ratings by the observers. This may be because of bias on the part of the teachers or observers; or it may be because the observers were concentrating on participation within ongoing task groups while teachers were more concerned with those students who failed to stay with their group at all. In any case, for this interpretation, we are interested in the teachers' perceptions of the students. Table 9.2 gives the proportion of students receiving a high rating for all treatment-sex categories in the observation and film curricula.

TABLE 9.2

Probability of Receiving a High Rating on Participation in Observation
and Film Curricula by Teachers: Boys vs. Girls by Treatment and Race

Treatment	Sex	Race	Observation Curriculum	
			% Receiving High Rating	N
Expectation Training	Male	Black	39.0	18
		White	70.6	17
	Female	Black	35.3	17
		White	39.0	17
Learning Center	Male	Black	13.9	28
		White	27.7	18
	Female	Black	11.2	20
		White	54.5	11

Film Curriculum				
Expectation Training	Male	Black	22.2	18
		White	41.0	17
	Female	Black	41.0	17
		White	64.7	17
Learning Center	Male	Black	23.2	28
		White	22.2	18
	Female	Black	23.3	20
		White	63.6	11

By and large the whites were more active than the blacks on the curriculum according to the teachers (black classroom observers do not agree with this generalization). In the Male Learning Center classrooms white males are not so likely to receive high ratings as in the Expectation Training. White girls are consistently more likely to receive high ratings than black girls. In all the ratings teachers made, there was only one white girl who received a "low" rating on participation. The teachers, the observers and the students themselves commented on the involvement with the curriculum of the white students. A group working on film is described which exhibits a pattern similar to the white dominance of laboratory groups.

This film group is a very interesting variation on cooperation. The group is led on this occasion by Roundalene (B.) and Susan (W.). Susan and Roundalene have different personalities. Susan can be very subdued until a particular activity excites her. She then becomes quite energetic. Roundalene has the more aggressive personality and tends to exhibit it quite a bit. On this particular film, Roundalene and Susan are the prime movers. Susan, however, dominates in directing, story line, etc. Susan has a very creative mind and it functions quite well when she is as interested in something as this film. She directs characters, sets the scenery, stage props, etc. She is the one who pulls the groups together. Roundalene helps out as Susan's "assistant" and occasionally directs the characters. On this particular day, Susan and Roundalene definitely were the more aggressive and dominating of the group in all phases.

Maggie (W.) is quieter than Roundalene and more subdued generally than Susan. Maggie fits into the group well because she seems to enjoy the film-making and takes orders well. She works consistently and has done quite a bit of work in bringing props and drawing. She definitely contributed to the group's effectiveness.

Lynette (B.) is the wild card of the group. She can be quite moody and involved if she doesn't receive the proper amount of attention. Today that situation existed. There was not much for Lynette to do and she became sullen. Today one needed to be aggressive to get involved with the film because there was much participation by the other three girls.

She finally became involved after much encouragement from the teacher and classmates. However, she should have participated more. Room 8

One white girl responded to the interview question "What do you think of the summer school up to this point?" "I enjoy building things or building up in knowledge." There is an undeniably "goody goody" quality about the interview responses of the white girls. Typical of the final interview with white girls is this protocol:

I liked the summer school very much and would like to have it instead of regular school. I found everything very interesting and rewarding. I thought everyone worked very nicely together and I hope to be able to do this again.

Although the white girls appeared more involved in the curriculum, some very active black girls were socially dominant. They appear to have set the mood of the class. This is reflected in the choice of blacks as the most powerful girls and also in reports of teachers and observers.

If the black girls were socially dominant, and if the classroom atmosphere was enjoyed by teachers and described by students with enthusiasm in the student newspaper, why weren't the black girls more likely to be seen as high participators on the curriculum?

In one of the classrooms of Expectation Training the answer appears to lie in the friction (described as "alienation") between some of the dominant black girls and a white male teacher. As a matter of fact, this was the only teaching team without a black member. A black observer analyzes the problem:

In the beginning days of the group interaction Lynne was a good student. She participated in the activities of the groups and their discussions. Now Lynne is a different young lady. She makes snide remarks to the class and to her group members as well. She only participates in discussions of any kind in a partial or disinterested manner. She shows very little of the enthusiasm she once had as a student when I taught her Malaysian. Why? One problem is that she does not like Mr. S. I don't know what Mr. S. has said to her, but Lynne is immediately turned off by his leadership role. This is very noticeable in the large group discussions. She will make "smart" comments and

generally will be negative in her attitude-- Another problem which Lynne has, which may be a result of her dislike of Mr. S., is that she does not like any of the activities the teachers plan. She finds them dull, boring, uninteresting. Room 6.

The same observer commented on the other Female Expectation Training classroom as they interacted with the same teaching team:

The workload is falling down to two main people: Andria (W.) and Susan (W.). Susan is quite interested but becomes very moody. The work therefore falls into the hands of Andria. Karen (B.) and Esther (B.) are completely "out" of it. They do not wish to participate in the activities of the groups and discuss other things within the group. I hope I'm not being biased in my reporting, but the lack of participation of these girls plus the general disruptive mood of the room is somewhat reflected in the attitude Mr. S. takes with his pupils. He has alienated, it seems to me, Naomi, Esther, Lynn and Karen who perhaps, if treated differently, would perform much better. Room 8.

We cannot judge the bias of this observer, but it was probably unfortunate that there was not a black teacher on this team. The reports show here and there signs of black resentment of the white girls being so "smart." One white girl complained:

Black girls pushed me because I was white--they got mad at me because I knew more things than they did or answered before they did.

The same white girl who responded above about her enjoying "building up in knowledge" was described unflatteringly by her black student teacher as "acting like she knew stuff, but she really didn't."

An aggressive white girl in the Learning Center reports: "First week everyone was being nasty to me because they thought I was being a smart ass." This same girl was part of a major crisis which she brought on by sharing with another white girl where their groups had hidden their treasure on the treasure hunt activity. There were tears over the verbal attacks of the other girls, disappointed in having the fun of the treasure hunt ruined. The teacher reported that when one black girl found out about it, she led a bunch of girls to "go get" Clare and Beth; but the teacher followed them and prevented any overt aggression.

In one of the Female Learning Center classrooms one girl expressed fear that her friend would get hassled on the way home by some other girls because she had "answered too many of the teacher's questions." Nothing actually came of this. The complex picture of social relations in one of the Female Learning Center classrooms is interestingly described by another of the observers:

Most white students tend to let black students do the actual work involved in arranging the squares for placement of artifacts. Theresa J. (Bl) as usual dominated the group--loud, rowdy, with no sense of direction. The three white girls seem to be intimidated by the overt gestures of the aggressive blacks, who, while active in physical games, tend to become passive when asked to participate in class work or group discussions. I detect a bit of hostility exuding from the blacks; and whites have an aversion towards the lack of interest exhibited by their black classmates.

To add the final touch of complexity to this sketch, there was a special relationship between some of the white girls and their teachers. Teachers appreciated students who were so devoted to the curriculum. Typical of a teacher's evaluation of a white student is the following:

Corinne (Wh): She takes leadership roles by suggesting camera techniques and takes initiative in demonstrating the action to which she is referring. At the same time she recognizes when it is someone else's turn to use the equipment and steps back at that time; also, she listens to suggestions of mine and of the other students.

In addition, several white girls clearly developed a "crush" on one of the young black teachers, a turn of events resented by some of the black students.

The unequal participation in the curriculum and the suggestion of differential relationship with the teaching staff made the development of interracial relations different in the girls' classrooms. There were feelings of hostility, but they were not expressed very openly as in the boys' classrooms. As will be described below in the section on interracial relations, when overt hostility did occur among the girls, the teachers "cooled it" with alacrity. Thus one did not hear of blacks

confronting whites about their feelings of having been "put down" or refusing to work with them in groups if they were going to insist on dominating. The blacks seemed to have quietly decided to let the white girls have their way on the curriculum as long as they could dominate the social scene.

In thinking about the typical coeducational integrated classroom, this picture does not bode well for the treatment of expectations based on race with girls. Our observation coincides with the common observation on schools that white girls distinguish themselves by docility and "giving the teacher what she wants." The black males with all their activity appeared to fascinate and attract both black and white teaching staff almost to the neglect of the white males. In all these interactions, it is the black girls who are likely to receive neither the benefit of the teacher's attention nor the rewards of classroom performance.

Examination of these soft data has not reassured us that results of the Female Learning Center on the criterion task were totally an artifact of measurement problems. It may well be that girls require the more powerful of the two treatments, Expectation Training, to overcome some of these special problems of unequal curriculum participation and differential relationship with the teachers. Girls' Expectation Training classrooms, it will be recalled, showed an equal status pattern of interaction on the final criterion task, despite qualities of classroom interaction described above.

Interracial Relations at the Center

Conventional evaluations of social experiments in interracial cooperation examine the sociometric friendship choices of the participants for the amount of cross-race choice. In addition, the evaluators examine reports of interracial "harmony" or "friction." In our materials there are interesting reports on such matters, but upon careful consideration, one wonders if these materials are really pertinent to the question of interracial cooperation. These indicators arise from

an older model of inter-group relations where the long-range goal is a utopian state of "Christian love" between groups which have been in a state of conflict in the larger society. From the beginning our goal has been the more modest one of setting the conditions so that members of different status groups can manage to carry out tasks together, enabling individuals to make contributions to the group's product according to their interest and ability.

Nevertheless, the examination of the way the children responded to one another, especially the interaction in the markedly successful treatment groups, suggests ways in which educators might assist the process of ongoing interracial interaction. It may, for example, be desirable for students to bring out in the open underlying feelings of mistrust and hostility, so that these feelings can be dealt with. Students may have to be taught, not only skills of group cooperation but skills relevant to conflict and negotiation. We will return to this question upon completion of examination of relevant reports.

Students' Reports on Interracial Relations

In a newspaper article in Room 5 (Male Expectation Training), the students examine the issue of interracial relations:

Question: Why do you think the Federal Government is spending thousands of dollars for this summer school?

Answers: Maybe because Black and White people have been far apart---- Blacks didn't like Whites and Whites didn't like Blacks.--- So there wouldn't be so many fights.

Question: Do you think it's working?

Answer: Many of the White students felt that some of the Black students picked on them because they were White. Most of the students agreed that there was more fighting in their regular schools during the school year than in this summer school.

Question: Is there interracial cooperation outside Claremont in the rest of Oakland?

Answer: Not really---In some parts there are--- I see it with the boys and girls, but not that many.

In the same newspaper edition, students' names under the column headed "Likes," "Blacks getting along with Whites." Under "Dislikes" they list "Many students do not try to cooperate interracially."

Students comment anonymously on interracial relations in the newspaper of a girls' classroom in the Learning Center:

I think that all the races get along well here. When I went to Claremont I didn't get along too well with a lot of the kids. Here I get along with a lot of the kids. If this school was set up to see what the relation between the races is, then I think it has failed. The school is very nice but is not a true picture.

The summer school program is working for me at least. So far, no one has put me down because I'm white and I haven't heard anyone put down because they are black. I think everyone in my group get along well aside from the usual stuff about clothes and hair. Everyone is very nice, even the teachers. And I don't think anyone really cares about the person's race. If only there was a kid president.

I like the summer school. It teaches us a lot of things we didn't learn in public school. But I get along with the white girls. But when we black kids ask if they want to play they always say no.

I get along pretty well with kids of other races. It's fun to work with other kids if they're nice too. Some of the kids here are mean to you, but I learned to take it.

Many students were quite conscious of our purposes of producing interracial cooperation through working together in small classroom groups. This is shown by a newspaper report from Room 8 (Female Expectation Training).

Happiness is Interracial Cooperation

How Sharon's Group Gets Along

I think we get along better than any other group. Sharon is a nice guy and we get along with her good. Sometimes we are hard to handle but otherwise we are OK.

Karen H. (B1)

When we do things we share it. And we cooperate with each other. This is the most cooperative group I have ever been in.

Konstance S. (Bl.)

We all love Sharon. She is a nice teacher. It seems like everybody wants to be in her group. Barbara Harris is a nice teacher too. We work together and we get along just fine.

Felicia T. (Bl.)

We work all the films together and take turns working the movie projectors and editor and the movie camera. We have lots of fun doing that.

Ourania (Wh.)

In the same room a member of another group reports:

How Fred's Group Gets Along

We get along like a little family. When we first came to Fred's group we were all mad because we didn't want to come to him. We thought he was going to be mean because of the way he looked at us. We learned our lesson. Never judge a person by his looks.

Naomi G. (Bl.)

In all these materials there are few reports of the kind of inter-racial fighting which parents so fear in the integrated school. Despite careful probing in the interviews, there are very few reports of fights. Teachers were also asked to report on any critical incidents. The few they do report comment that physical conflict sometimes had the issue of race dragged in as an afterthought. The following is an example:

Jerome H. (Bl.) and Michael K. (Wl.) became involved in a critical incident. Jerome was told by another black student that Michael had been talking about him. Jerome started hitting Michael. Michael reacted by calling Jerome a "Nigger." This triggered Jerome to more hitting and threats. At this point one of the teachers became aware of the situation. Jerome was taken outside of the classroom and questioned. When Michael was called out as well, the

above description came from both students. Unable to get both students to realize that both were wrong and to try to drop the matter, the teacher referred this incident to the main office. Room 5 (Male Expectation Training)

Initially, white children appeared somewhat fearful of some very active black children. To adult observers, the whites appeared unable to distinguish between real hostility and the teasing behavior which the black students carried on with each other as well as with the whites. When the whites exhibited fear, the blacks would increase their attempts to "hassle." This pattern of behavior was far more characteristic of the early days of the summer school; whites learned how to respond as the school progressed. In the final interview some of the white students referred obliquely to this behavior:

Good things about the Center: Get to know a lot of nice guys--especially in film-making--because you're acting and so on--you get to know the guys real well--you get to know what he likes to do and they get to know what you like to do. (Male Learning Center)

Bad things about the Center: There are a few big guys and they bother you (stick hands in your face). Everyone gets bugged by them and they bother people. (Male Learning Center)

Some kids would pick on me but I learned to ignore them and they lost interest. Pier R. (Wh) (Male Expectation Training)

Some of the kids were mean--act big and bother you. (Female Expectation Training)

One white girl reported several incidents of her hair being pulled and being "socked." She reported this to the teacher as well as to the interviewer. The black students who were accused of this aggression were sent to Dr. Favors, and the incidents were never repeated. It was quite typical that aggression was taken very seriously in the girls' classroom; while the boys were allowed to work things out by themselves for the most part.

Overall the picture of interracial relations is a complex one involving these elements: (1) the personalizing and de-stereotyping effect of getting to know people of other races through interdependence on tasks; (2) open expression of mistrust and dislike between the races,

particularly in Expectation Training; (3) acceptance of the ideal norm of interracial cooperation as good and legitimate; (4) gradual diminution of white fears as a consequence of learning to understand the meaning of aggressive behavior in blacks.

The ambivalence of the intergroup relationships is summed up in the note scrawled on a questionnaire by a black student, "I just can't stand whites, but I (sic) not prejudiced!"

Themes of the Movies

In connection with the film curriculum students created a final film as a culmination to their training in the techniques of camera work, editing and splicing. These were shown to parents on the last night of school; the students were immensely proud of their creations.

Examination of the content of these films suggests that the students were trying to work out for themselves the relationship between the theme of cooperation and the theme of interracial conflict. The general tone of these films was violent, featuring fighting, policemen, and guns--especially the boys' films. The girls were more likely to deal with fantasy and magic, although the net effect of their fantasies was often the death of the participants. It is important not to over-interpret this violence because the students appear to be greatly influenced by what they have seen on television.

Without making tenuous inferences, there are three types of films attempting to deal with the question of relationship between the races. The first type portrays the spirit of cooperation and harmony directly. The second type expresses conflict and ambivalence followed by some type of conflict resolution. The last type has blacks and whites indulging in mayhem; but the direct interpretation of this is masked by the use of humor and fantasy.

There were three films clearly of the first type:

The Closer You Get----The Friendlier You Get!

Two pairs of girls, each with one white and one black, walk between narrow white lines, gradually coming closer until they meet, shake hands and briefly converse. Next, a close-up of a blackboard shows two dots, one white and one brown approaching each other.

When the dots meet hearts (white and brown) and stars radiate out from them. The hearts and stars gradually disappear; the dots move apart and vanish. The words, "Love, Art, Peace, Joy" appear.

Room 22 Female Learning Center

Friends When We Meet

White boy crosses street, enters school yard gate; black boy comes out school door. The two boys meet, slap hands, converse, walk away together.

Room 23 Male Learning Center

Sweet Sweet and Tart Teedy

Two girls, one Black and one White, approach each other from opposite directions. They have the following conversation: B.: Hello, what's your name? Wh: Sweet Sweet, what's yours? B.: Tart Teedy. Wh: Can you do magic? Bl: Sure, watch this. (Tart Teedy disappears and reappears. Beckons to Sweet Sweet to come. Sweet Sweet refuses. Tart Teedy, using a dried palm frond, makes Sweet Sweet disappear and reappear. Sweet Sweet takes frond and does the same to Tart Teedy, then throws down palm frond. They run off together.

Room 8 Female Expectation Training

A second group of films attempts to portray some kind of aggression or interracial conflict. They resolve this difficulty by settling the fight in the end or by having whites play the character of black aggressive personalities (such as Mohammed Ali). Typical of these themes are the following:

The Hummm Hummm

After a long initial shot of three girls holding the title sign, the drama begins: A black girl saunters along sidewalk; a white girl walks slowly through bushes; a black girl comes across the street; and they all meet on sidewalk where the white girl bumps one of the blacks. They argue and the white girl stalks away while two black girls call her names. Black girls walk after white girl who returns to meet them. After a small fight, the three shake hands.

Room 8 Female Expectation Training

The Avenged Ball

Various shots of all girls kicking, rolling, bouncing, tossing, throwing ball on various areas of playground. Two black girls making tough, mean faces at camera. Black and white girls doing drunk scenes; fall down together. Two white girls doing mock ballet then pace down as if to shoot each other except they surprisingly go into a dance together at last second.

Room 8 Female Expectation Training

You Can Make Friends

Two girls, red-sweatered white girl and black girl descend outside stairs; black girl waves at another white girl standing on sidewalk; white girl waves back. Two girls walk up sidewalk, away from other white girl. Red-sweatered girl appears to be directing black. Red-sweatered girl and black girl have disagreement over which way to go. Red-sweatered girl wants black girl to go back to other white girl. Black girl objects at first. But then they both walk back and are joined by other white girl, have conversation, then the three stroll away arms over shoulders.

Room 6 Female Expectation Training

Searching

Two girls (one white, one black) with guns, search in bushes along sidewalk. (Perhaps they are looking for each other.) At end, they bump back to back and run away in opposite directions.

Room 6 Female Expectation Training

The World's Championship for \$30,000

Referee (Wh) introduces Mohammed Ali (W.), then Joe Frazier (Bl). They meet, discuss rules, touch gloves. Round 1--After fairly long exchange of jabs, Frazier is knocked down. He's knocked down a second time. They return to corners. The Referee is also Frazier's trainer; he wipes Frazier's brow. Round 2--Both fall down dramatically; Referee counts; fighters get up and fall down again. Walk off together, arms around shoulders, Referee in front.

Room 5 Male Expectation Training

One can infer in the third type of movie that, at some level, students were dealing with violence in interracial relations. The cast of characters was, by means of teacher assignment to working groups, necessarily black and white, so that by chance, it was likely that the parties to the aggression portrayed in the film were of two different races. The reader can judge these films for himself or herself.

The Duel

Two duelers (one White, one Black) stand with guns back to back. The intermediary (a small Black) makes them shake hands and gives instructions. The duelers pace off, turn and shoot the intermediary who falls to the sidewalk dramatically. Then the duelers shake hands.

Room 6 Female Expectation Training

The Pickpocket

Black girl with bottle staggers drunkenly along sidewalk followed by two white girls who shove her on to grass and "roll" her. Black girl suddenly leaps up with gun, makes two whites put hands against trailer. Black girl shoots at their feet making them dance. Tells them to "Scram."

Room 8 Female Expectation Training

Do Not Disturb!

Scientist (Bl) mixes brown and white powders in liquid, drinks them, dumps remainder in sink. Writes "Failure" in notebook. Next scene: he drinks a successful potion and becomes claw-handed monster. Attacks white boy, drags him home, gives him drink of solution. White boy turns into green-faced monster and apparently kills scientist-monster.

Room 7 Male Expectation Training

These films suggest that the problems of violence in the streets and the interracial conflict of the society around them were very much on their minds. The school, with its emphasis on interracial cooperation, never dealt directly with the problem of violence or conflict. The children were left to "work it out" in the world of fantasy. In future interracial work, we might well consider allowing the children to deal with this topic in the classroom as well as through the indirect medium of filmmaking.

Friendship Choice

There were two sociometric questions dealing with preferred association. One asked the children to list their first, second and third choices for a companion on a picnic. The other asked the children to make three choices for a work partner on a task much like those they had experienced in the observation curriculum.

In evaluating the results of sociometric choice, it is important to keep in mind some key features of the Center. As noted earlier, we were not particularly working to produce interracial friendships. We were trying to produce and maintain equal status behavior in a work situation. Secondly, one of the effects of the treatment and free atmosphere of the school was to make it possible for many black students to express openly their basic mistrust and dislike of white people in honest verbal interchange. Thirdly, the social structure of each classroom accounts for some of the sociometric results: for example, previous friendships among some of the children and critical incidents involving large groups of children in some of the classrooms.

If race had become non-existent as a basis for friendship choice (partner on a picnic) we would expect to find within-race and cross-race choosing at a chance level. At the other extreme, if we were to discover that whites never picked blacks for picnic partners or blacks never picked whites, it would be an indication of a rather severe social cleavage in the school. Table 9.3 gives the observed and expected level of cross-race choice on the criterion of three friends with whom one would like to go on a picnic. If the cross-race choice is at a low level, then one can assume that within race choice is at a high level, because the probabilities for cross-race choice plus within-race choice always add to 100%. The table is broken down by classroom, so that one can examine the variability from classroom to classroom within each treatment-sex category. This variability is important to keep in mind because it reflects the special informal social structure which tends to develop in each classroom, probably quite independently of the effects of treatment.

TABLE 9.3

Proportions of Student Choosing Across Race for First, Second or Third Choice on Picnic Partner Criterion: Observed Vs. Expected for Each Classroom

Treatment	Sex	Class-room	Race of Chooser			
			Black		White	
			% Choosing Observed	Cross-Race Expected	% Choosing Observed	Cross-Race Expected
Expectation Training	Male	5	28.6	53.4	41.7	53.4
		7	4.8	56.2	18.5	43.8
	Female	6	20.0	46.6	47.6	53.4
		8	3.7	42.6	33.3	57.4
Learning Center	Male	23	30.8	27.8	80.0	72.2
		24	36.4	44.1	48.1	55.9
	Female	20	6.7	33.3	13.3	66.7
		22	10.0	40.0	60.0	60.0

The Male Learning Center classrooms have a level of cross-race choosing which is close to the level we would expect if race were irrelevant to friendship choice. At the other extreme one Male Expectation Training classroom and one Female Learning Center classroom show both races markedly preferring members of their own race for a picnic partner, i.e., a strong pattern of in-group cleavage. Over the whole table it is clear that whites are much more likely to choose blacks than blacks are to choose whites. This is the reverse of what one would expect if whites were high status members of the classroom.

These figures suggest that the effect of Expectation Training was to produce high status blacks in the classroom social structure; while the effect of the Learning Centers Treatment for males, was to produce a classroom social structure where race was irrelevant to friendship choice. This is consistent with the data on small group and large group classroom participation.

There is marked variability from classroom to classroom within a given treatment-sex category. Rooms 7, 8, and 20 which have a very low level of cross-race choice, especially for blacks, are also the classroom where racial cliques were most apparent from the sociograms.

In both Expectation Training and Learning Center conditions for both sexes, there tended to be relatively more black students often chosen than whites. This finding was much stronger for girls than boys, in both treatments. In both conditions, for both sexes there tended to be relatively more white isolates than blacks. This pattern was stronger in Expectation Training where all the isolates, mostly boys, were white.

Some of these effects are probably due to the number of old friends students found in their classes on the first day. Some of the cliques so strong in the Female Expectation Training conditions are probably a result of the fact that 12 girls in these rooms found more than three old friends in the classroom and 17 girls found one or two old friends. There are more "old friends" in these two rooms than in any other treatment-sex category.

Work Partner

Choice of a work partner is an indicator more closely related to status imbalance than choice of a picnic partner. The major question of interest in analyzing the results for this indicator is the number of classrooms where blacks chose whites more than would be expected and whites chose blacks less than would be expected by chance. This is the pattern we would expect to find in a white-dominated classroom. In contrast, if race were irrelevant in choice of work partner, the observed probability of cross-race choice would be at a chance level. Our questionnaire item is not a pure measure of status because social power and friendship probably also affected the choice of work partner as well as expectations for competence.

TABLE 9.4

Proportions of Student Choosing Across Race for First, Second or Third Choice on Work Partner Criterion: Observed Vs. Expected for Each Classroom

Treatment	Sex	Class- room	Race of Chooser			
			Black		White	
			% Choosing Observed	Cross-Race Expected	% Choosing Observed	Cross-Race Expected
Expectation Training	Male	5	47.6	53.4	58.3	46.6
		7	9.5	56.2	37.0	43.8
	Female	6+ 8*	25.5	45.2	71.4	54.8
Learning Center	Male	23	25.6	27.8	86.7	72.2
		24	39.4	44.1	44.4	55.9
	Female	20	6.7	33.3	33.3	66.7
		22	26.7	38.8	44.4	61.2

* In those cases where there were no major differences between classrooms, they were collapsed.

There are similarities to the previous table on friendship choice and a few interesting differences. In the first place, the Male Learning Center classrooms again indicate the irrelevance of race to choice of work partner. Secondly, whites were much more likely to choose blacks in each and every classroom than blacks were to choose whites. In no case is there a pattern indicating a white-dominated classroom.

The difference between choice of a picnic partner and choice of a work partner is that choice of a work partner raises the probability that whites will choose blacks in every case but Room 22 of the Female Learning Center. With the exception of Room 7 the other three classrooms in Expectation Training are showing more cross-race choice among blacks than on the picnic criterion.

In review, these classroom sociometric data are not consistent with a picture of white domination. The whites are more likely to choose blacks than are the blacks to choose whites. The amount of cross-race choice goes up with the change of the criterion question from friendship to work partner. The Male Learning Center consistently shows race to be irrelevant to sociometric choice.

What Can Be Learned From These Data

These data have proved to be a rich source of speculation on how we might have improved upon the cooperative classrooms. They give us a picture of group process and the emotions which the criterion task data cannot provide.

In addition, they are a provocative force in the reexamination of what the ideal model of interracial relations might be within a school setting in a community where racial conflict is quite evident and children reflect the distrust of members of the other race, probably felt by their parents.

Lastly, these data can help us to answer the two major questions arising from interpretation of the systematic data: Are girls harder to treat than boys? Why is there a tendency toward black dominance in the Male Expectation Training final measurement?

Improvements in the Cooperative Classroom

Although the tasks designed for the classroom were interdependent, this structure does not assure a group process where students listen to each other's ideas and avoid continuous domination by certain group members. Regardless of whether the domination is by whites or blacks, the qualities of group process can affect the morale of the class. Continuous bickering and status struggles can generate distress for many of the children.

There are two strategies we might employ in improving the group skills and willingness to cooperate. Because these students acquire little experience in group work in their regular school programs and because they live in a society where competition is stressed more than cooperation, we cannot expect that they will automatically exhibit good group process and cooperative behavior because we label the program "interracial cooperation" or because we design interdependent tasks.

Some of the tasks of the Observation Curriculum were designed to illustrate to the children that certain tasks cannot be carried out without the full cooperation of each member. It was not clear that this lesson was effectively taught. Since the summer school, Dr. Joan Bloom, one of the developers of the observation curriculum, has refined and added activities. She has created a special curriculum unit, designed to teach the meaning and value of cooperation. She is currently evaluating the effectiveness of this treatment in a separately funded research grant. Upon completion of her work, this treatment could be built into the cooperative classroom procedure.

The second strategy which would seem particularly helpful is specific training in group process. Students could thus become aware of what the participation of all group members is. They could be trained to allow all alternative contributions by different group members to be expressed before reaching consensus. Dr. Mary Wilcox has developed such a technique using student leaders (Wilcox, 1972); and R. Morris is currently developing a group training technique (dissertation in progress). It would be easy to incorporate such training in a cooperative classroom.

With respect to the use of teacher's authority in these classrooms, it was apparent that we had not quite worked out all the problems of expectations for teachers' roles in this greatly altered social structure. They were unclear as to how firm they should be in demanding that students either stay with their assigned task groups or negotiate some alternative assignment with their instructor. Our attempts to straighten out this problem after norms and expectations were already in effect were not successful. It would seem that if teachers could be prepared for this problem during their pre-session training, we would have cut down on the problem of teacher's perception of lower levels of black participation in the curriculum. *

In addition, it was hard for teachers from traditional classrooms to avoid dominating the small groups. They obviously needed additional training in their new roles as facilitators and resource persons.

Conflict vs. Cooperation

If we are correct in interpreting the underlying confrontation in the Male Expectation Training classrooms, and if we are correct in inferring that the children tried to resolve the conflict between their obvious belief in the norm of interracial cooperation with their knowledge of interracial conflict in the society around them, then it would not be enough to teach the children how to carry out cooperation in their small group behavior. As educators, we can conclude that the students would benefit from assistance in interpreting this contradiction on an intellectual level and from assistance in dealing with conflict and distrust on an interpersonal level.

* Also helpful in raising the level of participation in the curriculum are the revisions of the observation curriculum which have been carried out since the summer school. Some of the activities were too passive and dependent on "teacher talk." These have been altered. Evaluation of the observation curriculum revealed that the more active the tasks were, the more "learning by doing," the more popular they were with the students. See Appendix B.

If black children feel that white children are "acting superior," perhaps the best approach is not to urge the group to utilize group process skills of listening and reinforcing each other. This would seem to sidestep the underlying issue. Perhaps students can be taught to speak openly and honestly about these perceptions and their resentment and anger toward those whites who "try to put you down." Likewise, if white children are bothered by the "hassling" of black children, they might be taught to "stand their ground" so that they do not incite further teasing. In other words, we might want to develop group techniques such as role-playing suitable for conflict and negotiation, where students can "agree to disagree" and can consent to work together on a basis of limited trust.

Of course, many educators will prefer the model of behavior exhibited in the Male Learning Center where race appeared to become irrelevant as a basis for predicting friendship choice, work partner choice or for predicting dominance by either race on the criterion task. We do not know enough about these matters to judge whether bringing out negative feelings into the open has a salutary effect in the long run.

There are, however, grounds for believing that Expectation Training is the more powerful of the two treatments, especially for girls. The problems of intergroup relations do not seem to have been resolved on any level in the Female Learning Center classrooms.

Resolving Questions of Interpretation

Without further research we cannot answer definitively the major questions raised by this experiment. These clinical data can only assist in drawing speculative conclusions.

There are worrisome features of interaction in the girls' classrooms which suggest that girls may require more powerful treatment than boys. The observed results on the Criterion Tasks for Female Learning Center are probably not a complete artifact of the control problems discussed in the preceding chapter. The involvement of the white girls with the curriculum and the associated attraction between white girls and teachers of either race is a pattern familiar enough to those who

work with interaction in biracial classrooms to support an interpretation of special problems of black girls. We would seem to be faced with two alternatives: We can either revise the curriculum to assure maximum interest for all students and work with the teachers to make them conscious of this problem of unequal participation and rewards for black girls; or we can contemplate the use of Expectation Training in preference to the treatment used in Learning Centers as suitable for girls.

Combining boys and girls in one classroom would most certainly not provide a solution for this problem. The black girls would then be left out of the picture even more severely because boys are likely to receive more teacher attention than girls, thus compounding the racial problem.

Finally, the black dominance in the criterion task of boys' Expectation Training is reflected in these clinical data. The sociometric choices reflect a pattern of black dominance as well as the classroom interaction data. The "putting down" of ordinarily dominant white males was openly described. Furthermore, the teachers appeared disproportionately interested in the black males. Unlike the Male Learning Center classrooms, where boys of both races were more interested in chatting with each other than in working on the curriculum, the whites were somewhat more active on the curriculum, but physical dominance of blacks played an important counterbalancing role. The process of becoming decidedly "black turf" was more conscious in these boys' Expectation Training classrooms than in any others at the Center. If blacks had underlying feelings of mistrust of whites, they told them about it. The whites argued or withdrew. Unlike the public schools, there were few real fights; rather there was a continued verbal interchange with a net result of a good bit of understanding over time.

CHAPTER X

SUCCESS OF THE LEARNING CENTER: THEORETICAL ANALYSIS

By focusing on questions of statistical significance of the difference between treatment-sex groups one can easily lose sight of the major theoretical questions raised by this study: Why was the Learning Center treatment so successful in producing equal status interaction in the short run for boys and girls? And why was this treatment in conjunction with the cooperative classroom experience associated with maintenance of equal status relations among boys at the end of the summer school?

We had designed the Learning Center treatment with the twin elements of successful task experience and non-competitive pupil relationships, reasoning that these would be elements used by experienced inter-group educators. We had not explicitly worked out why it might be expected to have a successful effect on expectations stemming from race. Nor had we ever envisioned the cooperative classroom experience as a possible treatment of expectations in and of itself. The results of the first measurement and the persistence of equal status interaction in the final measurement (for boys) forces us to go back and examine the Learning Center treatment and the cooperative classroom experience with a view toward developing a general theoretical understanding of why they might be successful as an alternative to Expectation Training.

If we can develop some theoretical explanations, we can test out these propositions in a laboratory setting. If our understanding of the situation is supported by laboratory tests, we will then be prepared to propose an alternative classroom treatment to Expectation Training on a firm knowledge base. This eventual development would probably combine features of the initial Learning Center treatment with the social structure of the cooperative classroom.

Cooperation as a Treatment

Looking back at the Learning Center treatment and the succeeding weeks of cooperative classroom experience, there are several sociological and psychological factors running through the total experience which merits close theoretical analysis. On the most general level this complex of factors can be described as the development of a multiple basis for students' evaluation of self and other. There were many different tasks; new and different abilities were defined as important for successful functioning at the Center. These tasks did not call upon previously developed classroom skills. It was likely that each student was good at some of the new tasks. Since competitive evaluation of the individual was eliminated, children could develop a complex basis for evaluation of each other, knowing that each person, regardless of race, had some important skills and abilities.

Learning Centers: First Week

Immediately upon entry into these classrooms, students were plunged into the four different tasks (Malay language, math, spatial problem-solving, and the radio transmitter). Students were not allowed any time for informal interaction before they found themselves side by side, engaged in learning four entirely new and varied tasks. Not only were these tasks unrelated to previous academic experiences, but they obviously tapped a wide range of human abilities and interests. For example, the math task required spatial visualization, manual dexterity, and the understanding of a formula. The Malay language task required learning how to use some new and strange sounding words. The radio transmitter task required understanding and using wiring diagrams; and the game of Mem required a visual kind of problem-solving in seeing patterns in colored pieces bearing a logical relationship to other patterns.

By staying in the same interracial group for the whole first week, children were able to observe each other showing different interests and abilities in the four new tasks, differences TOTALLY UNRELATED TO RACIAL DIFFERENCES. Extremely important in our analysis is the fact that during this first week no one was allowed to fail at any of the tasks; and students were not in interdependent groups where they were

encouraged to make evaluations of each others' contributions. This state of interdependence did not occur until the Classroom Phase. Theoretically, initial lack of interdependence is of considerable importance. If the initial tasks had been interdependent, race would have been activated as a diffuse status characteristic and made relevant to the new tasks. The techniques used in the first week allowed students to see each other perform successfully on some of the four tasks, without forcing them to make evaluations in order to produce a group product or reach group consensus.

It will be recalled that the children were grouped with a teacher or teacher aide for each task during the first week. Each instructor was supplied with the same carefully prepared instructional materials given to the student who played the role of teacher in Expectation Training. In addition, he or she had adequate time to adapt these materials for group activities. Thus teachers were able to relate to each student individually; this guaranteed a high level of success and reinforcement. Yet the situation was not totally individualistic with members of the group isolated from one another. There was a high level of interaction; cooperation was described as an ideal norm and was encouraged. Teachers invented and supervised group activities related to the four tasks. It was made clear that everyone was expected to succeed at each of the four tasks.

Several months after the summer school, teachers and teacher aides who had worked with the Learning Center students in the first week were interviewed by M. Lohman; they were asked to describe just how they worked with the students and the nature of the student reaction to one another and to the tasks. The excerpts from these interviews clearly reflect factors selected as important in the above analysis: individualization of instruction; success and reinforcement for each student; lack of relationship between task success and race; variety of skills involved in the four tasks; and introduction of cooperation and social interaction between students.

Interview with Neil S.

There wasn't much large group type activity as far as Mem was concerned. You just had to deal with each kid individually. Go by each kid and give him his own problem. Keep coming around to all of them and see how they were doing. I did have a helper with me; so both of us were doing it.

Q. Now toward the latter part would you say there was more or less interaction among the kids--these would be the tasks--were they pretty much sticking to their own boards?

A. At that time, more.

Q. Why?

A. Some of the kids didn't exactly feel like doing it. They were getting kind of bored with it, but they would like to set up a board for somebody else and play teacher. We were getting a lot of that toward the end.

Q. What are we seeing here? Do certain kinds of tasks appeal to some kids?

A. I would say that there was an equal split in liking the task as far as blacks and whites. Some kids liked it, some didn't.

Interview with Fred. O.

Q. Would you say all the girls performed equally well with the math curriculum, or were there differences that you observed?

A. They were all successful.

Q. Everyone was successful?

A. Yeah.

Q. But was there any way in which a person could stand out?

A. Well, they were faster at reacting to whatever the directions were; or they saw what was happening and knew what the next step would be---I think that some of the black kids were smarter and faster than some of the white kids.

Interview with Coralie W.

Q. How would you describe your method (on Malay)?

A. I had pieces of paper that had pictures. For instance, of a man. And the man was blocked out, and I would hold up the picture and say, "This is a man, a picture of a man, and in Malaysian we say that man is "laki-laki." And I would say, "laki-laki" and they would say, "laki-laki," and we would go around such as that in the first rounds; and eventually they would be able to say "laki-laki" without my first saying it. And you know, eventually they learned to say "ini laki-laki" - "this is a man."

Q. How did the students respond to learning Malaysian? Were they reluctant at first?

A. No. They were mostly--most of them were enthusiastic. There were some who were less enthusiastic, and I think there were some from both ethnic groups.

Also, I did something that I wasn't told to do. I cut my book all up, and I took the English phrases and the Malaysian phrases and I had them play matching games with these little phrases. And they liked that pretty well.

Interview with Judith S.

Interviewer: Judy, we're talking about your teaching Mem, and you were saying that one feature of the task that was attractive was that although abilities varied among your students, you were able to reinforce something positive, some positive level of performance for everyone.

A. I think that what I was probably trying to do was tutor on a one to one level.

Q. All right. Now did they start working with each other? Or did you pair them with each other?

A. One of the things I tried doing was pairing two quick ones, one with another. The other was to introduce peer tutoring so that a fast kid was showing a slow boy how to do it. This worked in some cases very well. I even tried mixing it up so that perhaps a slow boy would correct a fast boy.

Q. In terms of race, did this vary quite a bit? That is, in some cases you had black kids who were quick, sometimes white?

A. I would say in general the white kids were quicker, you know, about 90%. But then the black kids varied considerably. There were some extremely bright ones. I tried not to pair a fast white with a slow black.

Q. When you were saying you had a "bag of tricks," what were some of these tricks you had?

A. Well, first of all I had the feeling that if the student felt good about himself, he would be much more open and cooperative toward learning. So whatever got in the way of him feeling good about himself was, to me, relevant whether that be who he was sitting next to or problems of getting to school on the bus that morning, being chased by dogs. Whatever that problem was, whether he liked or didn't like what we were learning that day. And I tried really rather quickly to bring some of these obvious stumbling blocks to the surface so we could quickly cope with them.

Interview with Sharon W. (electronics)

- A. Some of the groups were seven people. And it got so that some of the kids were bored, they didn't understand what was happening. Some of the white students understood what was happening because they had been exposed to it all before.---His father had taught it to him. And the kids saw him as smartalacky. Well, when he went to get a wire, they all just turned him off completely---And another kid, oh he went home the first day and told his father what he was doing. His father went down to Radio Shack and bought all the equipment for him. And he did it all within a couple of days. He came back and told everybody, "I know how to do it already." So they turned him off immediately.
- Q. You had kids attempting to role play (teacher). Would it generally be black or white kids?
- A. I had some troublemakers in each race. (She would make these the teachers). So they'd do exactly what I would do, and when they'd get stumped and the kids would start saying, "You don't know what you're talking about. Let Miss W. do it." Then it would be time for me to take over from then on. That didn't happen every day, but when it just got completely out of control, that would happen. I'd say, "Well, we're a little bit behind now because our teacher just wasn't that good. He was good, but he wasn't that good. So we have to work faster." That way they'd really buckle down.

Interview with Larry W.

- Q. How would you describe the interracial atmosphere among the girls? Was there some tension?
- A. Initially there was a standoffish kind of thing---until they got involved. And I think that took their minds off this race business. And once they got involved in activities, whether it was the Malaysian language or the electronics, math or whatever---I think that the only time the racial thing would show its head was during recess periods for the most part.

Learning Center: Classroom Phase

The cooperative theme, stressed in the first week of the Learning Center was carried directly into the Classroom Phase. There was far less individual attention from teachers; instead the students were formed into new interracial groups where they had to look to each other as resources for completing the many group tasks. The range of human abilities called upon in the Observation and Film Curricula was tremendous; however, reading and writing skills were not prerequisite for successful completion of the assigned group tasks. The Film Curriculum,

for example, required the students to play the roles of actor, director, camera person, story writer, film editor, animator and film splicer.

By the time the Classroom Phase began, students in the Learning Center treatment had already acquired considerable information relevant to performance for other students. Furthermore, as the Classroom Phase progressed, students continued to acquire information about each other as valuable resources on a wide variety of tasks. Many of the curricular tasks were designed to equalize participation by structuring problems so that answers could not be achieved without contributions from all the group members. This technique was used in the Observation Curriculum. Theoretically, we believe that students in the cooperative classroom came to hold a highly differentiated view of each other. This does not mean that they saw each other as equal in all respects. Rather it means that students saw each other as strong in some respects but less able in other respects; but each person's "profile of abilities" looked equally jagged and uneven. In theoretical terms, this can be seen as members holding mixed sets of expectations for each other when entering any new group task.

There were two features of the classroom social structure which we suspect were critical to the development of these "mixed sets" of expectations. One was the use of group rather than individual accountability. It will be recalled that Awang Had's study of this concept indicated that status characteristics function much more strongly under individual accountability than under group accountability. (1972). Under conditions of group accountability, individuals tend to be much more venturesome and thus have a greater probability of displaying new abilities to each other and to themselves. The other classroom feature was the cooperative norm that emerged over time. In the first week of the Learning Center the ideal of cooperation was discussed and demonstrated by the teachers. Some of the tasks of the Observation Curriculum were designed to teach groups that cooperation can lead to greater success on some tasks than competitive behavior. Although it was felt that we should have done even more than we did in teaching about cooperation, there was considerable evidence of the internalization of the

norm. The norm of cooperation, in combination with the use of group accountability, probably worked to make individuals more likely to risk participation, in the tasks. This increased participation in turn, was vital in the continued development of new and different evaluations of each other as important resources in the completion of desired group products.

In summary, the Learning Center experience during the first week may have acted to prevent race from being the basis for assignment of expectations for competence by the students---both for performance on the criterion task of Kill the Bull and for performance on the inter-dependent tasks of the Classroom Phase. Prior to the first measurement on Kill the Bull, white and black students had already learned that one cannot tell by color of the skin just what an individual's ability and interest in a new task will be. Although group members of the first round of the game had not worked specifically with each other during the first week of the intervention, they had had a good opportunity of seeing both blacks and whites active and successful at four different tasks. It was also clear to them that at this school, there were multiple abilities relevant to the planned tasks.

The Cooperative Classroom Phase must have served to confirm their ideas of the multiple abilities relevant to the curriculum at the summer school. If we are correct in assuming that individuals began to form very mixed sets of expectations dependent on their observation and evaluation of each other's performance on the wide range of tasks, then the effect of race as a basis for assignment of expectations by the time of the final measurement should have been further weakened.

We have some indirect evidence that the differences in reading skill among the students did not lead them to assume that they would be unable to contribute to the tasks of the summer school. School records were checked to identify readers with serious difficulties in our sample. Only seven out of the eighteen problem readers were given low ratings by teachers on the observation curriculum (the more intellectual of the two curricula). Nevertheless, it was true that good readers were somewhat less likely to be given a low rating on participation by teachers (1 out of 26) than were poor readers.

The possibility that we may prevent diffuse status characteristics from becoming the basis for assignment of performance expectations by exposing individuals to situations where multiple abilities are called for, and where it is made clear that different people will be highly competent at different abilities, is an exciting one. It has clear implications for curriculum construction not only in the racially integrated situation, but also in the conventional classroom situation of heterogeneous grouping, where perceived academic ability, based largely on reading achievement, acts much like diffuse status characteristics in triggering self-fulfilling prophecies. The use of multiple ability curricular experiences with clear expectations that different children, regardless of their reading ability, will be expected to do well on different skills, may allow greater participation and development of students who are slower readers.

Clearly, we cannot test out this complex interpretation within the confines of these data. The "multiple ability" treatment needs to be tested out in the laboratory setting following a rigorous theoretical conceptualization of just how it weakens the effect of diffuse status characteristics and/or general performance characteristics such as reading ability. If the laboratory test shows that the effects of the status characteristic and/or general performance characteristic can be greatly weakened in this way, we will be ready to return to the classroom for a field test of cooperative multiple ability experiences as a curricular treatment for racially integrated situations.

Organizational Structure as a Treatment

There is one other possible treatment factor which may have contributed to the success of the Learning Center boys. We had constructed a unique organization, where power and authority were equally balanced between black and white adults. From their first exposure to the school, the Learning Center students worked with interracial teaching teams who exhibited equal status behavior as they worked together. This is an unusual experience in American society. Originally, this organizational structure was conceived as a control variable. Unless power and authority were distributed equally between blacks and whites, we reasoned

that students might conclude equal status behavior was desired only for children. This would weaken the effects of the treatment. In retrospect, it now seems possible that either the knowledge of equal sharing of power and authority between the races or the experience of adult modeling of equal status interracial behavior may have been a powerful treatment in and of itself. Learning Center students had more exposure to an interracial staffing pattern than did Expectation Training students. Expectation Training students worked in a predominantly black context during the treatment weeks; Learning Center students worked with an interracial staff throughout their summer school experience. All students were exposed to interracial teams in connection with the Classroom Phase.

Implications for Policy and Research

It may be the case that it is possible to produce equal status interaction by means of a "multiple ability" curriculum engineered so that individuals have success experiences on some of the initial tasks. It might also be the case that exposure to interracial staffing patterns is a viable treatment. Both these features might be necessary for equal status interaction.

For many reasons, it would be highly desirable to construct an alternative to Expectation Training, allowing practitioners some choice as to which treatment is feasible for their school setting. However, before we proceed to further field tests, this organizational factor hypothesized to affect expectation based on status must also undergo more rigorous conceptualization and experimental verification. Just as we must test out the basic proposition concerning the effect of a "multiple ability" situation, we must likewise test the proposition concerning the effect of status factors in the organizational context on the functioning of status expectations in the students.

The "organizational effect" must be clearly conceptualized as an alternative way of treating the effects of the diffuse status characteristic. Such a theoretical development could be tested most efficiently in a laboratory setting where we manipulate the organizational context by varying the status and interaction between a pair of Host

Experimenters who play the role of evaluators of the group's performance and are a laboratory analogue to the teams of teachers in the field experiment.

If it turns out to be the case in the laboratory study that status characteristics can be treated by altering the status composition of the adults in positions of authority and evaluation, there are some clear implications for future development as well as implications for integrated school staffing. If status characteristics can be treated by exposure to a pair of interracial evaluators who model equal status behavior, then this should be required of the eventual field site. We would not undertake another expensive field study without assurance that cooperating schools would be willing to provide this staffing pattern.

The policy implications of findings concerning the favorable impact on intergroup relations of interracial staffing are profound. Integrated schools, at the present time, are not typically balanced as to racial composition. Furthermore, if modeling of interracial behavior on the part of staff turns out to be the critical factor, the isolation of one teacher from another in the typical school means that mere arithmetic balance on the staff between members of different races will not be sufficient to produce the desirable effect. Team teaching will be another necessary change.

CHAPTER XI

IMPLICATIONS FOR EDUCATIONAL PRACTICE IN RACIALLY MIXED SCHOOLS

Expectation Training is a potential means of achieving equal status behavior in a desegregated setting. Evaluation of our results indicates that this intervention needs to be tested once more on a less self-selected population than the volunteers who came to the Center for Interracial Cooperation.

Assuming that the outcome of such a re-test was as favorable as the outcome of this experiment, what could we recommend to the administrators and teachers of schools and school districts who are concerned with the way black and white students relate to each other in the desegregated setting? A school district might decide to develop a specific treatment in a central location, such as Expectation Training. One might follow up the treatment itself, as we did, with further profitable learning experiences of a cooperative nature. Students would be taken to the Center for the specific purpose of learning about interracial cooperation.

In the first part of this chapter we will outline the critical features of such a program. We will try to separate for the decision-makers those features of Expectation Training which, as far as we know, are absolutely critical to its success, from those features which can be varied to suit the style of teachers and students in a particular setting.

As explained in the preceding chapter, the use of the Learning Center's treatment in conjunction with the cooperative classroom is not ready for further field testing until it is put on a firmer conceptual and experimental basis. Until this intermediate step is carried out, we do not have a basis for telling the practitioner which elements are critical and which are incidental.

The second section of this chapter takes up the longer-range implications for the eventual redesign of desegregated classrooms. Treatment for expectations based on race is seen as a necessary but

not a sufficient condition for the improvement of achievement by minority students. The principles used in the cooperative classroom suggest ways that an academic program might be revamped to prevent a single status order developing on the basis of race or on the basis of a perceived generalized ability to do well at school.

The final section discusses possible future school experimentation in connection with federal policy to assist desegregated schools.

Possible Application of Expectation Training

Expectation Training is a precisely formulated intervention. It is not comparable with a compensatory education treatment because it requires just as powerful treatment for the high status student as it does for the low status student. Neither is it similar to techniques designed to change an individual's behavior; in Expectation Training it is the group rather than the individual that is treated. Most important of all, Expectation Training is not a treatment to be undertaken lightly by educators who read these pages and feel they are ready to proceed with the "general idea."

We are stating this caution in its strongest form because we could envision a weak form of Expectation Training where low-status students were taught a new skill in the manner of the typical classroom instruction. If these students were then allowed to function as teachers without the assurance that each one had reached a criterion level of competence on performing the task and on teaching the task, the results might well be most unfortunate for this student, as we as for the high-status students who would have stereotypical views of incompetence confirmed.

Designing Tasks for Expectation Training

The particular tasks we developed for Expectation Training do not have to be repeated to achieve satisfactory results. Nonetheless, there are several important criteria for selecting and developing new Expectation Training tasks.

The tasks must be new to the participants and must not call upon abilities on which evaluations have already taken place. Thus a "basketball task" would be unsuitable, as would a task involving

specific mathematical skills on which the students had already received instruction and evaluation. Yet this dictum would not rule out other tasks involving physical skills or math tasks involving new and different specific intellectual skills.

Developing new tasks requires an extensive period of pretesting an effective method of instructing the low-status student, and special teaching methods and materials suitable for the young teacher's use. These methods and materials must be "foolproof" so that all low status students can reach a criterion level of competence given sufficient time. We do not usually design instructional tasks so that everyone will reach a criterion level of skill, but this is exactly what must be done in the case of tasks used for Expectation Training.

The tasks must not be specifically associated with one of the status groups being treated. Suppose that one were to invent a jazz musical task as an Expectation Training task for an interracial group. The fact that the black students were highly competent on this particular task would only confirm specific stereotypical expectations about blacks being "musical." It would not generalize to new tasks following training. Thus it is essential to pick a skill as an Expectation Training task that has no specific cultural expectation for low-status student competence.

It should go without saying that the tasks must be intrinsically interesting enough that low status students will want to learn them and high status students will be eager to take on a student role.

Additional consideration should assure that the task can be learned in a short period of time. The outcome of the task in terms of the competent performance of the low status student must be visible. The teaching-learning situation in which the two status groups interact should preferably be one in which considerable verbal and physical interaction is possible. The high-status student must know that he or she is completely dependent on the instruction and guidance of the low status student in order to carry out the task.

Preliminary Instruction of Low-Status Students

In order to bring all low-status students to criterion on performing and teaching someone else the Expectation Training tasks, we utilized a college-age instructor of the same status background as the student. The reasoning for this choice was that this attractive instructor would serve as a role model for the younger low-status student, inspiring him or her with the confidence that he or she would make an effective teacher just like their college-age instructor. Furthermore, with a person of a similar status background, a minimum amount of time would be lost in establishing a relationship of trust between teacher and student. Our college-age instructors have typically used highly structured and demanding instructional techniques to which the low-status student has responded very well. Both the reasoning behind this choice and the children's response to instruction leads us to recommend that practitioners do likewise. A high school student, if sufficiently trained, is a practical substitute for the college-age instructor. This instructor must be explicitly prepared by pre-training in methods of teaching the low-status students. In the Center, we prepared teacher manuals for the instructors' use. It is most essential that a criterion level of competence be established on performing the task and on teaching the task. Instructors should be held responsible for seeing to it that each student receives the amount of time and attention required to reach criterion levels of competence.

We have always used a videotape role model of a low-status student teaching a high status student during this preliminary period of instruction. The purpose of this role modeling tape is to produce self-confident behavior as rapidly as possible for the low-status student. The low-status student is shown this tape in preparation for his role as teacher.¹ He or she can see that a young person, just like himself, can carry off this new role with aplomb.

¹It is only necessary to show a role modeling tape in connection with one of the Expectation Training tasks.

At the time the videotape is shown, the elements of "what makes a good teacher" are explained:

- (1) Being self-confident
- (2) Speaking up
- (3) Explaining your ideas
- (4) Letting the student do the work

During the process of instruction, it is essential that low-status students not be allowed to make invidious comparisons between themselves. If one student is made to feel slower in learning the tasks than fellow students, a sense of relative incompetence is likely to develop. This can be avoided either by individualized instruction or initial lessons in which a group is taught "en masse" followed by individual lessons in which students are brought to criterion.

Treatment of the High Status Student

After low-status students have been brought to criterion, a videotape is made of their competent performance on at least one of the Expectation Training tasks. When the high status student enters the scene, he or she along with the prospective teacher is taken to view this videotape. An adult points out how "competent this young teacher is," particularly reinforcing the behavioral elements listed above.

The actual teaching and learning situation can take place in a group. It has been our experience that the sight of low-status students all around, competently teaching high status students constitutes a powerful learning experience for all concerned. We have also utilized the college-age instructors to be sure that each young teacher's experience is successful and to coach the young teacher not to rush through the lessons too fast.

It is not necessary that the particular student-teacher pairs be identical with the small group membership in cooperative follow-up activities. The results of this experiment specifically indicate that treated expectations will transfer to new people representing the same status characteristics.

In addition to the videotape of competent behavior, we have also continued to use a videotape taken of each student during the

teaching-learning procedure. An adult reinforces the good teaching and key behavioral elements for teacher and student. A portable video machine is ideal for this purpose.

Design of Follow-up Activities

School districts should design specific cooperative experiences as a follow-up to this treatment. Students can then work out interracial relations for themselves, much as they did at the Center. These activities must not have the character of conventional academic classrooms either in content or social structure. The activities can be different from those in our two curricula but the basic social principles should be the same, i.e., cooperative small group interaction; high interest-high interaction tasks; group accountability; multiple abilities involved in making a contribution to the group.

Examples of alternatives for our two curricula might be a study of cultural differences, camping activities, a dramatic or musical production, or engagement in significant community work. These activities must be planned in sufficient detail so that staff members are absolutely assured that the stage is set for interaction on significant tasks between members of different status groups.

Just before students move into follow-up activities, the important step of spelling out the relevance of Expectation Training to the new cooperative activities will strengthen the effect of treatment. In this step, low-status students are told that the self-confident competent behavior ("speaking up," "being self-confident" and "explaining ideas") will make them a good team member in the activities to follow.

Our experience has indicated that techniques of assisting group cooperation and group process skills as well as a method of assisting the students with their fears and angers concerning interracial relations are most desirable additions to the follow-up of activities.

Staffing and Costs

We cannot be sure that school districts will obtain as strong and persistent results as we did if they do not replicate our staffing pattern of interracial teaching teams for the follow-up activities.

At the present time, we feel that the modeling of effective interracial relations on the part of adults is quite critical. Further experimental work is needed in this area, but in the meantime, this aspect cannot be ignored.

It will be recalled that in the Interracial Center all the roles in the school setting were distributed evenly among black and white adults, except for one set of positions--the black college-age instructors. Perhaps even more important than the numerical equality among races was the way in which authority roles were divided and shared, both in teaching and administration. As a result, students rarely saw one adult of either race acting as a sole authority on any matter. Students also saw adults making decisions and working together on a cooperative interracial basis--something students told us they had never seen happen in school.

It would be unfair to say that we had no staff problems; two aspects could have been improved considerably. One was in preparing members of the teaching team for their relationship to each other. The authority relations among these three adults were often ambiguous. We did not specify to what degree the credentialed teacher was actually a team leader with the authority to direct the activities of the other members in the classroom or to what degree the members of the team were "equal-status" making decisions by consensus. As a practical matter, the school district might want to consider forming a team of a credentialed teacher and two aides or parent volunteers, with clear authority in the hands of the head teacher although providing some decisions in which all group members must participate. The racial composition of such teams is critical; obviously, the head teacher must not consistently be the high status member. Exposure to several teams with varying composition is so much the better.

The other staffing problem was our unclear conception of the role of the college-age instructors during the Classroom Phase. They had not been adequately prepared in the curriculum to play the role of assistant on an equal basis with other members of the teaching team. They should have been adequately prepared or only hired on a short-term basis.

It is not easy to translate the relevant cost of the Interracial Center into a precise figure for a school district that might want to alter the status relations among its pupils. However, we have tried to present a good estimate of the costs involved.

As in most educational enterprises the largest expense is for the salaries of adult personnel. In Expectation Training we hired college students at \$3 per hour. In the Learning Center we used a mixture of credentialed teachers at a cost of \$6 per hour and adult aides at a cost of \$2 per hour.

Provided that the specific tasks to be used during an intervention sequence have been selected and developed, it takes about one week of training for an adult to be sufficiently prepared to carry out an intervention sequence lasting one to two weeks for the students involved. A good general estimate of cost to a school district to operate an intervention, including training of the adults, material for the intervention tasks, and the carrying out of the intervention sequence would be \$60 per pupil for Expectation Training. The costs in operating a Learning Center intervention would be somewhat less, closer to \$45-50 per pupil, due to some modest economies of scale.

In arriving at these figures there are certain assumed costs which have not been included in the \$60 per pupil figure. We are assuming that a school district contributes a physical facility. Depending on the size and scale of the number of pupils involved there will be some administrative costs. These have not been calculated. In Expectation Training there was a brief but important use of videotape equipment as a reinforcement of high-status behavior on the part of the black students. We have not included the purchase costs of such equipment although we did calculate a modest user rate for the brief taping of each child.

The intervention tasks were relatively inexpensive to produce on a mass scale after they had been elaborately developed as appropriate tasks. The total costs of all four tasks came to less than \$10 per child. Clearly, any district that decides to use more elaborate equipment would simply increase the per capita costs.

However, it should be remembered that we only ran one cycle of an intervention sequence. Presumably, a school district might want to run a new cycle every eight to ten weeks for a different set of pupils. To some degree, tasks could be repeated with different groups, although too much repetition may diminish the status values attached to the intervention activities.

Expectation Training in a Real-Life Setting

Situations faced by school districts are even more complex than the field situation in which we operated. We had control over student selection, while districts may not. A prime problem is that many school districts have other status distinctions besides black vs. white. What about school districts where the ethnic minority is Chicano, Puerto Rican, Indian—or the more likely case of a mixture of several low-status minorities and members of the dominant majority culture? Before Expectation Training can be applied to some other ethnic distinction, it is necessary to carry out a baseline study using the standard criterion task described in this study. If, in four-member groups, the data reveal a pattern of dominance by high status group members over the sample of approximately twenty four-person groups, then one can conclude that Expectation Training is applicable. At the moment we are running such a baseline study on the Chicano vs. Anglo distinction; another such study is being run in British Columbia with Indians and Anglos. (Cohen, Human Relations).

What about the problem of sex segregation? Since sex sometimes functions as a diffuse status characteristic, the student teacher and learner in Expectation Training should be of the same sex. It is also desirable that instruction of low-status students take place in sex-segregated groups. One can easily imagine that if a mixed-sex group of low status students were being taught a task such as the radio transmitter, the boys would quickly assume greater competence, thereby giving the girls low expectations for competence as teachers. We found that in sex-segregated groups the girls

were delighted with the radio transmitter task. In the follow-up activities, if classrooms cannot be segregated by sex, then the small work groups should at least be all of one sex. Otherwise, the tendency of males to dominate face-to-face interaction may greatly weaken the effect of the treatment for girls.

An additional complicating factor in school settings is inability to control the timing of the treatment. In the Interracial Center, most of the blacks and whites were new to each other. They had not had prior opportunity to make evaluations of each other in a classroom setting. This is the most desirable situation, but not always a possibility in school districts. An ideal time for a treatment would be just prior to entering an integrated junior high situation from a relatively segregated set of feeder elementary schools. Alternatively, students from different schools might be bussed to a central location for the interracial curriculum experience. Theoretically, once students have had the chance to make specific evaluations of each other in a typical classroom setting, it is far more difficult to modify expectations. That is why it is worth considerable trouble to treat groups before they have had the chance to become acquainted.

Can younger children be treated? We have some evidence from Seidner's study that the phenomenon of white dominance can be seen in groups of fourth grade boys. This leads us to infer that a treatment such as Expectation Training could be developed for children as young as nine years of age. Using the principles outlined above, it would simply be a matter of developing new tasks.

By the same reasoning, treatments for adults who are in a vocational training situation and will have to work on the job as an interracial team are a very real possibility. If Expectation Training were to be adapted for this setting, it would be necessary to develop a new criterion task for the purpose of determining whether or not status distinctions create a situation of dominance by high-status team members. The new criterion task should preferably be very close to the kind of work the team will eventually be asked to do. For example, if you were designing a treatment for

an interracial teaching team, you might give the group a problem to solve pertaining to the behavior of a student. You could ask the group to reach consensus on what would be the best solution and then score high and low status group members for their initiation rates on the task. (Hall, 1972). Once developed for the baseline study, the new criterion task should be used as the means of evaluating the effectiveness of Expectation Training.

Evaluation in the Field

It is highly advisable to design an evaluation of the effectiveness of treatment in any new setting. In addition, "quality control" of the manner in which the treatment is being carried out is necessary. Evaluation by means of the standard criterion task used in this study is the simplest and best way to proceed. A randomly selected set of four-person groups (two high-status and two low-status members) from the population experiencing treatment can be run through the criterion task and compared to data from previously treated groups or to a set of control groups not experiencing treatment. It is most inadvisable to run a set of groups before treating them in order to compare their progress after treatment in a classical "before-after" design. Playing the game before treatment gives members a chance to make specific evaluations of each other, making it much harder to design an effective treatment, as explained above. In the groups selected for evaluation purposes, only one status characteristic should be allowed to vary, with two high-status members and two low-status members. Two-person groups should never be used because interaction scores are insensitive to two person groups--if one member talks, the other is virtually forced to talk back.

Additional quality control measures can be taken to see if low-status students are reaching criterion and are not allowed to make invidious comparisons with each other. Inexpensive scoring of participation in the follow-up activities can be undertaken with parents or high school volunteers. Of course, a sociometric measure, preferably a criterion question of work patterns, can also be taken.

Review of General Principles

In this section, we present a brief outline of the major points involved in planning an Expectation Training treatment. We also discuss the advisability of various "short-cuts" in the procedure.

I. Selection and Development of Expectation Training Tasks

- Task A.** Must be new to the participants and must not involve skills on which they have received previous evaluation.
- Task B.** Must be intrinsically interesting and involving.
- Task C.** Must not be stereotypically associated with either status group.
- Task D.** Must involve two abilities:
 - 1. Performing the task.
 - 2. Teaching the task to someone else.

II. Preparation of Low-Status Students

- A.** Each low-status student must reach a specific criterion level of competence:
 - 1. On performing the task.
 - 2. On teaching the task to someone else.
- B.** It is advisable to use an attractive young person of the same status background as the instructor.
- C.** It is advisable to use a role modeling tape.
- D.** Make a videotape of each low status student competently performing one task when he or she reaches criterion.

III. The Teaching-Learning Situation

- A.** Student and teacher must not know each other.
- B.** Student and teacher view videotape of low-status student's competent performance at the task.
 - 1. Adult reinforces particular behaviors as they appear on tape.
 - 2. These include "speaking up," "being self-confident" and "explaining ideas."
- C.** Low-status student teaches high-status student; instructor is available to assist if absolutely necessary.
- D.** Videotape is made of teaching-learning procedure.
 - 1. Videotape is immediately shown to teacher and learner.
 - 2. Videotape reinforcement procedures as in previous tape showing.

IV. Follow-up Cooperative Activities

- A. Relevance of training tasks to activities to follow is spelled out to low status student; particularly reinforced behaviors are mentioned.
- B. Activities are cooperative and involve a high level of participation in small mixed-status groups.
- C. Use group accountability rather than individual accountability.
- D. Invidious comparisons should be avoided.
- E. Conventional classroom skills are not a prerequisite for success in the tasks.
- F. It is advisable to pick high interest, active tasks yielding a minimum of teacher domination.
- G. Activities are staffed by interracial teams.

There are always hazards in translating a technique which operates successfully under the watchful eyes of researchers to the real-life school situation where so many particular constraining factors operate. Realizing that many school districts may wish to take "short-cuts" we can discuss these alterations in light of possible effectiveness decay of the intervention as a consequence of a seemingly harmless "short-cut."

Choice of Tutors for Students in Expectation Training

Whereas no special credential is required for this role, it would be a mistake to place any adult who did not have great rapport with young people and who was not viewed as a role model. For this reason, teachers and parent aides might be very unsuccessful for either of the above reasons. By being personally attractive and confident in his or her abilities, the tutor provides a powerful role model to the low-status student; this feature should not be compromised by a school administration because there are adults readily available as part of an inexpensive labor pool.

Continued Repetition of the Same Intervention Tasks

Much has already been written in this chapter about the importance of selecting unique and interesting tasks for the students to teach one another. When a task is repeated too often, its uniqueness among students in a given school or school district may diminish. If that

happens, specific expectations could form for performance on the task before participation in Expectation Training, thereby weakening effects of training. Also, tasks that are well known and common around the school are not usually considered as emotionally involving as a brand new experience introduced in an attractive way. It is this important quality of uniqueness and attractiveness that should not be compromised by school districts tending to routinize the administration of an intervention sequence.

Increasing the Adult-Student Ratio During Training and Intervention

A tempting possibility for cost-conscious school districts is to increase the ratio of children to adults. In the past, the most serious issue of using one instructor with a group of low-status students has been the problem of invidious comparisons. Students learn to compare their own performance with those of peers from a very early age. We would like to think that slower students might learn from quicker students by this observation. Unfortunately too many students learn, from this comparison process, that they are incompetent at the task and subsequently give up the attempt to learn.

Students who fail to master the intervention tasks will not be receiving an effective treatment. One way that can be considered to cut the cost of adult staffing is the introduction of group instruction for the first few training sessions. These training sessions must be set up so that invidious comparisons cannot be made. Then, intensive instruction for each student can build upon the basis of the first few lessons.

Reducing the Number of Intervention Tasks

Data following the four-task version of Expectation Training in the summer school do not look very different from data following the one-task version of Expectation Training in the laboratory. Thus it is conceivable that a calculated risk might be taken in reducing the number of Expectation Training tasks.

Eliminating Videotaping and Reinforcement Procedures

These features of Expectation Training were added to overcome difficulties experienced in the earliest version of the laboratory treatment. We concluded that in order to convince low-status students of their competence, some very dramatic procedures are necessary. It is possible that low cost substitutes might be developed for these procedures, but they should be tested systematically. In the meantime, we would tend to advise the practitioner to be conservative about changing any feature we have reported in describing principles of intervention. The content of the intervention can be altered substantially, but the basic principles must be observed very meticulously.

Interracial Staffing of Follow-up Procedures

One interpretation of the experiment's results was that the successful persistence of equal status interaction over the longer period of time was aided by the presence of interracial teams in the Classroom Phase. Although we have not as yet made an independent test of this proposition, the wisest procedure to follow until more is known of this contextual effect is to repeat our staffing patterns. A desirable side effect of such a staffing pattern is to provide in-service training experience for staff who can observe how differently students perform when the social structure of the classroom is altered and can experience some equal-status interaction with adults of different status. However, staff who will work with this interracial situation should be selected on their initial attraction to and ease with interracial situations as well as their preference for group work.

During the development phase of this intervention, we learned that each change in procedure, although solving one apparent immediate problem, creates a host of other problems. That is not to suggest that the design and carrying out of an intervention is a completely technical, unimaginative procedure. Although imagination and sensitivity are desirable in the creation of intervention tasks, a successful outcome requires use of the basic principles underlying the operation of the intervention. These basic principles are derived

from the theoretical framework on which the intervention is based. We believe they can be applied effectively by thoughtful educators. Our caution, however, is "Stay conservative when it comes: to altering a basic principle; remain flexible when it comes to thinking up desirable tasks and follow-up activities for a specific group of pupils."

Redesigning the Integrated Classroom

In its present form, we would not predict a transfer of effects from Expectation Training to the conventional integrated schoolroom situation. If the status groups are at different achievement levels, and if the school tasks are mostly based on these academic skills, then high-status students are likely to dominate classroom tasks by reason of their superior achievement status even if expectations based on racial status or ethnic status have been effectively treated.

The conventional classroom has certain features which encourage the formation of a status order based on Perceived Academic Ability. Expectations for competence at new tasks based on Perceived Academic Ability function to trigger self-fulfilling prophecies of Performance in the schoolroom. Even though the educational psychologist will explain that human ability is no longer seen as undimensional by behavioral scientists, this conception of a single dimension of ability ranging from "smart" to "dumb" persists among school personnel, parents and students. This underlying belief system is an important feature of the development of a single status order based on academic ability.

A second feature of conventional classrooms underlying the development of ability status ranking is the use of individual accountability in a competitive social structure. The system of grading and public recitation is one of "winners" and "losers," in which those who receive high grades and high praise come to see themselves as having high general ability on any new task they are given. Those who see themselves as "dumb" come to have low expectations for competence at any new task.

A third feature of conventional classrooms promoting the development of a single status order is the underlying similarity of most of the curriculum tasks. By the time a student reaches junior high school, almost all the tasks assume reading, writing and computational skills. The student who has not achieved sixth grade level at these skills is automatically counted a "loser" in almost every subject. The array of human intellectual abilities utilized in school work is typically narrow, emphasizing the use of formal English and convergent "right-answer" thinking. Even if the first two factors described above did not operate to produce a single status order, the sheer overlap of requisite skills from one subject to another would easily produce the same effect.

Theoretically, these features of classrooms will have to change in order to improve the achievement of low-status students as well as improve the way mixed-status groups work together. There are several methods one can envision altering the social structure of the classroom to avoid the single achievement status ordering. One direction is that of the cooperative classroom, structured much as were the classrooms in the summer school experiment. A Social Studies curriculum might well be constructed on this model.

An alternative direction is that of individualized instruction, in which each individual works against his or her own criterion level of competence. Some patterns of individualization, however, do still permit students to make invidious comparisons as to how well they are doing in school. Other systems of individualization make comparisons between individuals almost impossible. The particular system of individualization chosen by the instructors must be carefully analyzed in light of the three factors we have listed as underlying self-fulfilling prophecies stemming from generalized notions of academic ability.

A desegregated school might well wish to place basic academic skills on an individualized, contract basis and other curricular areas on a cooperative classroom basis. In any case, it should be clear that we are recommending fundamental reorganization of classroom social structure and curriculum rather than some in-service treatment of teachers. In making these recommendations we are continuing to use as a basis the same theoretical framework that

underlies Expectation Training. Of course, it will be necessary to test whether these ideas would indeed improve achievement for low-status students, as well as equal status behavior. We include this discussion in order to illustrate how a theoretical framework might be used to design experimental changes in schools. (For a more detailed discussion of the extension of the theoretical framework, see Cohen, 1973).

Designing Future Experiments

The current experiment focused on peer interrelationships. There is a need to design experiments more directly applicable to the desegregated school. It is clear that newly desegregated schools are experiencing some interracial problems; it is also clear that desegregation has not provided the degree of improvement in black achievement scores desired by students and parents. These are not the only problems arising in the desegregated setting. The policy maker at the federal and local level is so beset with the problems schools are experiencing that he has very little rational basis for allocating limited funds. What kinds of activities represent the best investment to achieve a complex set of outcome goals?

The Emergency School Aid program has not been designed or administered to support carefully designed experiments capable of yielding generalizable knowledge about the desegregation process. There is no clear and specific policy as to what constitutes the achievement of quality integration. Federal moneys can be used to subsidize school budgets; they can be used to provide specific services to desegregating schools; or they could be used to generate widely applicable knowledge useful for individual school districts.

It is our recommendation that experimental desegregation programs be designed and funded. So many innovative programs are called "experimental" that it is essential to point out the restricted meaning in which we use the term. We are here referring to deliberate design of contrasting treatments, in which the choice of variables that will be altered has a basis in previous theoretical and empirical work.

An example of such an experiment would be the outcome of research described and proposed in this report. If we are able to substantiate propositions concerning the treatment of expectations in the Learning Center Treatment proposed in the last chapter, we will be prepared to evaluate the effectiveness of a Multiple Ability Curriculum treatment in the desegregated school setting. In order to treat the expectations based on achievement as well as expectations based on achievement status, language arts as well as mathematics would be taught on an individualized basis while social studies would be incorporated into a Multiple Ability Curriculum taught on a cooperative basis. We might then determine if Expectation Training is necessary in addition to a Multiple Ability Curriculum in producing the desired outcomes of equal status interaction and improvement in basic academic skills. A control group might simply be exposed to an individualized program in the language arts and mathematics area.

Looking further into future developments, the theoretical framework used in constructing the cooperative framework suggests new and different ways to alter the process by which teacher expectations for low performance on the part of low-status groups eventuate a self-fulfilling prophecy. This approach suggests a program of experimentation with the evaluation system used in schools. At the present time, teachers play a central role in the evaluation of academic performance for individuals. This could be altered by making tasks self-evaluating and by other means which would shift the teacher's role to that of resource persons. At the same time, the competitive social structure which allows students to see themselves and others in a rank order of academic ability can be changed by means of individualization or the use of group accountability. Without eliminating the student's source of clear feedback on problems with his or her performance, it is possible to conceive of experimentation with a school's total evaluation system.

Such an experiment would try to alter organizational, task and social system variables with the goal of trying to reduce the amount

of generalized global evaluations which are made toward any group of children. The psychological literature has emphasized the great range of individual differences, but these differences are measured along only a few dimensions leading to the erroneous belief that some children are good at everything and some are poor at everything. Educators and researchers must discover ways of altering roles and competencies so that generalized beliefs about abilities have less chance to form.

A final suggested experiment deals with the organizational context of the desegregated school. Experimentation with interracial staffing and modeling of equal status behavior on the part of adults as a means of treating the intergroup relations of the students is a fruitful line of investigation. Once put on a firm conceptual basis, this line of experimentation might eventually be able to handle the case of schools with numerous low status ethnics exhibiting hostilities and difficulties in their relationship to each other as well as difficulties of interaction between high and low status groups.

CHAPTER XII

SUMMARY AND CONCLUSIONS

The Center for Interracial Cooperation was a field experiment designed to contrast the effectiveness of two treatments in fostering equal status relations in an interracial group. The design of the experiment called for a short intervention to produce equal status behavior followed by a four-week classroom phase. There were two major measures of equal status behavior; small group interaction was measured just after intervention and four weeks later at the end of the classroom phase. Throughout the experiment there were two treatment groups who were totally segregated from each other. One group received a laboratory-based treatment called Expectation Training; the other experienced an alternative treatment designed to produce interracial cooperation. The alternative treatment was called Learning Centers.

Expectation Training is a method of changing the expectations for relative competence on new tasks held by low and high status persons. It is a treatment based on the Theory of Status Characteristics and Expectation States and was previously shown to be effective in altering the pattern of white dominance in interracial work groups in a laboratory setting.

The Center operated in a busy, urban junior high school building loaned to us by the school district. This junior high school was the center of an interracial problem for the school district. During the school year the students were racially integrated, but they came from predominantly segregated neighborhoods and elementary schools. Black and white parents complained that little learning and too much fighting took place. Realizing the urgency of the problem, the local school district contributed to the project, although it was primarily supported by the Office of Education. The two populations—the inner-city black students and the children of white business and professional people—were virtual strangers to each other; distrust, fear and stereotypical views were palpable in the summer school from the first day.

Intervention: Expectation Training

The black students in the Expectation Training condition came a week early (33 completed training); black college students taught them four new tasks and how to teach these tasks to someone else. Two tasks were academic--Malay language and culture, and a geometry task; two were non-academic--building a radio transmitter and playing a spatial problem-solving game.

When the white students in this condition arrived (n=33), they became students on the four different tasks. Each task required daily lessons for five mornings. The Malaysian language task used videotapes and reinforcement procedures. Everywhere one looked, there was a serious and intent young black person working with a teaching manual and directing the behavior of a well-motivated white student--a massive dose of black competence.

Intervention: Alternative Treatment

The other half of the summer school (n=76) also experienced something new. Each of the four racially mixed classrooms (two female and two male) met an interracial team of teachers and teacher aides. Immediately they were divided into small interracial groups and introduced to the concept of group cooperation. As in the other treatment condition, they learned about Malays and their language, constructed geometric figures, built a radio transmitter and played the spatial problem-solving game. But in this case, the materials prepared for the young black teacher were adapted by an adult working with one small group at a time.

There was a high probability of success for each student; some of the tasks were especially interesting for each child. They frequently fell into patterns of working together under the supervision of the teacher who could praise and give attention to each member of the group. Groups rotated between the four adults during the five mornings of the first week.

The Classroom Phase

In order to test the power of Expectation Training to produce equal status interaction capable of persisting over a protracted period of social interaction, a four week curriculum experience

was designed to follow the intervention. In the second week, after the first measurement, classrooms were formed, segregated as to sex, integrated as to race, and continuing to keep separate the children who had experienced different treatments. For the first time, children in Expectation Training met their interracial team of teachers and teacher aides.

Experienced educators volunteered to create the curricula according to the principles of social structure selected as essential. In order to prevent a status order based on perceived academic ability, very little reading and writing was required; tasks demanded many different abilities; there was no grading; the teacher was not to be the major evaluator; the curricula demanded active, competent participation in the group. In order to create a noncompetitive accountability system, tasks were collective, and the group was responsible for its product.

In addition to these specifications, we asked that the curricula be intellectually defensible and intrinsically interesting. One curriculum taught the children how to make a movie documentary, from filming and editing to splicing and projection of the final product. Small interracial groups each made their own film. The other curriculum taught observation skills, communication through symbolism, and the distinction between fact and inference.

Results of the Summer School

There were two major measurements of small group behavior. Four-person interracial groups were composed and instructed in the criterion task of "Kill the Bull" just after intervention and again at the end of the summer school.

Membership in the second measurement group was always different from membership in the first measurement group. This was the same criterion task previously used to measure the pattern called "interracial interaction disability," a game played by two white and two black students. Videotapes are scored for the relative initiation and influence rates of each player. If the pattern of "equal status interaction" has been achieved, then the probabilities of initiation of blacks and whites on the task over a sample of groups are similar.

It was hypothesized that Expectation Training would be more effective than Learning Centers, the alternative treatment, in producing equal status interaction. The results indicated that a pattern of equal status interaction was observable in the criterion task groups of both treatments; thus we had two rather than one treatment with potential practical value as an intervention.

It was also hypothesized that the cooperative classroom experience would sustain the pattern of equal status interaction in the Expectation Training condition, so that there would be no significant decrease in black initiation rates over time, or increase in white initiation rates. This hypothesis was supported in the data. The results for boys in Expectation Training were somewhat surprising. By the end of the classroom phase, we could observe black dominance in the classrooms, in sociometric data and in data from the criterion task. Black boys were somewhat more active in the final measurement on the criterion task than in the first measurement. The difference was not statistically significant, but the tendency was consistent with all supporting data.

In the final measurement, Learning Centers resulted in a perfectly equal status pattern on the final measurement for boys. The data on girls in Learning Centers presented special interpretation problems. From a statistical point of view, the whites were significantly more active in this treatment-sex category and the blacks were significantly less active. In other words, a pattern of white dominance marked these groups. The problem of interpretation lay in deciding how to attribute this white dominance. There were very few groups run in the final measurement; these two classrooms were predominantly black. In general, when the white girls were older than the black girls, there was a tendency for the whites to dominate criterion task groups. In the Female Learning Center several of the groups had older white girls. In addition, there was the problem that some of the black girls had not had the opportunity to play the game on the first round or had been relatively quiet players in a few black groups of two boys and two girls we had run in the first measurement.

When classroom data and sociometric data were considered in conjunction with the criterion task data, we concluded that there are fair grounds for the suspicion that girls may be harder to treat than boys. Expectation Training may well continue to be the more powerful of the two treatments for girls if long-lasting results are desired.

Examination of classroom participation data substantiated the tendency toward black dominance found in male Expectation Training. In both boys' and girls' classrooms in this condition, blacks were participating at a higher rate than would be expected by chance. The Learning Center classroom data were more variable with some classrooms showing whites participating at a higher than chance level.

The problem of self-selection of the population and the lack of an untreated control group selected on the same basis as the students in the Center led to the conclusion that Expectation Training should be run once more on a larger self-selected population.

Interracial Relations at the Center

Examination of a variety of data collected on the summer school revealed a remarkably successful interracial experience. Students internalized the norm of interracial cooperation. They showed little conflict with authority figures, were highly involved with the curricula; they reported very few instances of overt interracial conflict. Whites who were initially fearful of black teaching behavior learned to interpret the difference between teasing and true hostility as the weeks passed. There was considerable cross-race choice on sociometric criteria; in only a few classrooms did both races tend to segregate themselves sociometrically. Whites were more likely to choose blacks than blacks were to choose whites. Socially powerful black students appeared to dominate the influence structure of the classrooms.

Explaining the Success of the Learning Center

Post hoc explanations for the success of the Learning Center treatments were presented. One possible explanation was an alternative treatment of status expectations by means of a set of experiences enabling the children to evaluate themselves and others on a variety of abilities, with guaranteed success on some abilities, for each child. Furthermore, these abilities represented in the Learning Center treatment and in the cooperative classroom curricula which followed, do not include conventional academic skills. In other words, it may be possible to formulate an alternative way to prevent the self-fulfilling prophecy of expectations based on status. This alternative treatment requires theoretical formulation and rigorous laboratory testing prior to further field test of the elements in the Learning Center and Cooperative Classroom as an intervention in and of themselves.

A second possible explanation for the success of the Learning Center was in the effect of the uniquely structured interracial staff in interracial interaction with the students. Both at the administrative and classroom level, students saw black and white adults modeling equal status behavior and sharing power and authority. Learning Center students experienced an interracial teaching team from the first day. As with the above explanation, treatment of status expectations by changing the organizational context of the school needs to be theoretically formulated and laboratory-tested before further field tests are made.

Needed Development of the Cooperative Classroom

A critical analysis of the quality of classroom interaction suggested several needed additions to the post-treatment experience. It is not enough to design collective tasks for interracial groups which require interdependent behavior. Students need additional assistance in group process skills; they need to understand what cooperation means in behavioral terms and when it is useful.

In addition, teachers need more assistance in their altered role as resource persons. They tended to dominate some task groups and were uncertain about how and when to require students to stay with their task groups or negotiate a legitimate alternative activity.

The students' own reports and writings as well as the content of their films suggested that treatment of expectations still leaves the nature of interracial relations to be worked out by the students. They expressed concern with the theme of interracial violence although they appeared to take the ideal of interracial cooperation very seriously. Expectation Training in particular appeared to lead to a frank and verbal confrontation with blacks expressing minimal trust of whites and refusing to participate with whites who tried to dominate work groups. In conclusion, it was recommended that techniques of assisting the students in more direct fashion to deal with their feelings of fear and mistrust in open discussion should be developed.

Applications to the Desegregated Situation

In its present form Expectation Training is only useful for modifying interracial interaction in situations unlike that of the conventional classroom. After a further field test, it should be ready for use as a specific curriculum treatment designed to teach interracial cooperation if the intervention is followed up by cooperative activities. The practical problems of constructing such an intervention sequence are presented in the report.

If the school district's goal is to redesign the integrated classroom to achieve improved student outcomes as well as equal status interaction, Expectation Training is seen as a necessary but not a sufficient condition. However, the same theoretical framework which has proved useful in developing this treatment can be used to develop ways to change the social structure of the classroom in order to improve the academic achievement of low status students. The extension of this framework as a line of future experimentation is described. Reaching this goal requires further theoretical work and laboratory studies before a major field test can be carried out.

It is recommended that the general approach, taken in this research, of deliberate experimental manipulation of field situations, using a well-developed theoretical knowledge base, would result in

information of widespread utility to federal policy makers. Field experiments such as the Interracial Center succeed in far more than answering the original research question. Constructing a new model of classroom interaction, as we did in the post-treatment weeks, allowed us to envision entirely new ways classrooms can be changed to manipulate the social situation to the advantage of the learner.

CODING MANUAL: STUDENT-TEACHER INTERACTION

WHAT IS TO BE CODED

This study is concerned with verbal interaction. However, because the classroom situation is controlled by the teacher, certain gestures by students will be coded as well.

DEFINITIONS:

1. **SPEECH:** The entire act of verbal utterances made by an actor, uninterrupted by another actor.
2. **ACT:** (or communication). A complete thought expressed by an actor. A single word or phrase is considered an act only if the word or phrase expresses a complete thought. Thus, "What," "Why," "Yes," and "No" are considered acts, whereas "Er," "umm," and "I..." are not. An act will generally be a simple sentence.

The distinction between a speech and an act is made to enable the coder to more completely identify various parts of what may well turn out to be a monologue on the part of the teacher.

Aspects of Each Act to be Classified

1. Who initiated the act. Use the identification number of the child in scoring. Classifying acts according to the initiator will not present any serious problems if the observers follow the following conventions:
 - A) An act is initiated by individuals only. The class as a whole cannot initiate. If two people are talking simultaneously and each completes a thought, score both acts. The order in which you score simultaneous acts is not important. The only exception to this rule is when the class answers the teacher in unison.
 - B) As soon as a speaker completes a thought, record him as initiating. Do not wait until he has finished his speech. Since the observer must then determine the type of act (part 2, below) and finally decide who receives the act (part 3, below), he should make the simpler decision as soon as he can.

CODING MANUAL: STUDENT-TEACHER INTERACTION

2. The type of Act. There are four categories of acts. Each act must be classified into one of the following:

- P --- Performance Output: An actor makes a statement which moves the task toward its goal.
- A --- Action Opportunities: An actor gives a socially distributed chance to perform. That is, he makes a comment which is intended to elicit a response.
- + --- Positive Evaluation: An actor reacts favorably to another actor's idea. That is, he shows agreement with the statement, points out positive aspects of the statement, or praises the other actor for the statement, or praises the other actor himself.
- --- Negative Evaluation: An actor reacts negatively to another actor or to another actor's idea. That is, he shows disagreement with the statement, points out negative aspects of the statement, or criticizes the actor for his statement, or criticizes the statement itself.

3. The receiver of the action. Any individual member of the class (including the teacher) or the group as a whole can be the receiver of an act. Scoring the receiver of an act can present serious problems, especially if the receiver and the initiator of the act are both students. The observer may have to infer the intent of the speaker. If the speaker mentions his receiver by name, then the inference is clear. Other clues include the person at whom the speaker looks, the content of the previous speech, and physical gestures such as pointing.

What Acts to Score

It is clear that not all things which go on in the classroom are instrumental to the learning task. For this study, only those acts which directly relate to the educational tasks are to be coded. Such acts are by and large determined by the teacher; it is rare that a student will determine what is the educational task at hand. Therefore,

CODING MANUAL: STUDENT TEACH-INTERACTION

1. Score acts which relate to teacher imposed tasks. If the teacher has given permission to a student to set an educational task for the class, then score acts relevant to this task as well. Also, task related acts which appear out of context (i.e., math comments in a social studies class) are not to be coded.
2. Score Behavior which are initiation attempts (such as raising a hand) within the task area. These will be scored as potential performance output. The most common such behavior is hand raising which will be scored H.
3. What not to score.
 - Non-task remarks, such as items of procedure (ask to sharpen pencil), student reporting on another student ("tattling"), teacher discipline of a student ("be quiet," "sit down").
 - Other behaviors, especially disruptive ones (pencil throwing, pushing, walking around).

A final word of caution: Score only those acts which directly relate to the classroom task at hand. All other acts or behavior are to be excluded.

Timing - draw lines after each 5 minutes.

Manual for Observers I

Introduction

Investigators considering sociological questions such as interpersonal relationships, attitude change, group structure, and leadership, have tested many of their hypotheses with small groups in a controlled laboratory setting. The purpose of this study is to examine the interaction which takes place in an ethnically mixed task-oriented group. The subjects are 5th, 6th, and 7th grade black and white boys and girls. They are divided into groups of four, and each group is observed playing a game entitled "Kill the Bull."

The data which will be used for testing hypotheses and drawing conclusions will come almost entirely from the work of the observers who will score from pre-recorded tapes the verbal interaction of the subjects as they play the game. It is therefore critical to the success of the research that each observer become completely familiar with the scoring rules and develop the ability to record interaction accurately.

Since the reliability of the human observer as a measuring instrument is subject to wide variation, we have tried to outline a training schedule which will communicate all of the instructions, and which will give the observers a common frame of reference within which to score and to handle problems which we have not anticipated.

Schedule for Training

The task of learning how to score interaction requires concentration and practice. The time spent perfecting your skills as an observer is an important part of your work on the project. The schedule below indicates the steps you should take in preparing. We will go over the first step, the rules for scoring, at the introductory meeting. In addition, there will always be a member of the project team whom you can contact for questions and guidance.

Category System for Observing Interaction

1. Definition of an act:

The system of analysis we are using is concerned with verbal interaction only. Therefore gestures, incoherent mutterings, and other terms of non-verbal behavior are not considered interaction. EXCEPTION: When a subject shakes his head "yes" or "no" in response to a question from another subject, this gesture will be scored as would the words "yes" or "no." It should be clear that this gesture is scored ONLY when it is a response to a direct question.

An act is the single continuous speech of one individual. A speech is considered continuous, regardless of pauses, so long as it is not interrupted by another individual. A single word or a single phrase is considered an act only if the word or phrase expresses a complete thought. Thus, "what?", "why?", "yes," and "no" are considered acts, whereas "er," "Mmmm", and "we..." are not.

2. Scoring an act:

Score comments which move the task forward.

The scoring of an act has one component: Initiator: the person speaking.

3. Examples

A. When a player counts out a path: Score when he is using this method of showing an alternative. Do not score if he is merely counting along a previously suggested path.

B. Interruptions. Don't score unless the interrupted act meets the following criteria:

- (1) You can identify the initiator.
- (2) His intent was clear to the group.
- (3) The group heard him (even though they may have ignored him)—you are supposed to hear only what the group hears.

C. Marginal Remarks. The general rule is to score only acts which move the task ahead. Thus,

- (1) I hope we get a six no score
- (2) I wonder how many turns it will take score
- (3) How many turns do we have left? no score

App. A-6

- (4) We sure are smart score
- (5) You're great score
- (6) We took the right path score
- (7) You had a good idea score

D. Non-verbal behavior. Only verbal behavior should be scored -- body motions may be used to judge receiver of an act.

E. Comments after the die has been thrown.

DO NOT SCORE:

- (1) Statements of fact about score, such as: "We have 500 now."
- (2) Any remark made to the Host Experimenter.

DO SCORE

(1) Comments which relate to the task ahead or comments on paths taken, for example:

- (a) "I told you we shouldn't have gone that way"
- (b) "You really did well."
- (c) "Next time we should go straight."

F. Scoring for specific acts which have been troublesome:

- | | |
|--|-------|
| (1) Did you mean this way? | score |
| (2) No, I meant down here. | score |
| (3) Do you want to go down here? | score |
| (4) Yes, and then we can turn over here | score |
| (5) Wait! (or) Wait a minute! | score |
| (6) That was my idea. | score |
| (7) Here's a way. | score |
| (8) I think we'll lose there. | score |
| (9) OK, let's go. | score |
| (10) Well, we don't have much choice | score |
| (11) I was the one who suggested that. | score |
| (12) Better keep on going. | score |
| (13) Hey, you want to try coming through here? | score |
| (14) We'd only win on that way with a 3. | score |
| (15) Anything but a 3 will do us good. | score |
| (16) Hey, hey--this way, this way. | score |

"Kill the Bull" Interaction Observation Sheet

Number of turns _____

Group # _____

Total # of Acts _____

Observer _____

Won _____ Lost _____

Name _____

ID Number

Number of Acts

1. _____

[illegible]

Instructions for Scoring Influence

A maximum of four points may be distributed for each turn. The person who initially makes the suggestion that is eventually accepted by the group gets one point. Each person who makes at least one remark which reinforces or argues for that suggestion gets one point. (Simple acquiescence does not merit a point.) If three people have argued for the suggestion then the fourth may not receive a point. If the person who makes the suggestion that is eventually accepted by the group also offers support for his suggestion then he gets one point in addition to the one he has already received. For example:

Team member A: makes suggestion that is accepted: one point
Team member B: argues for A's suggestion: one point
Team member C: supports A and B to convince D: one point
Team member A: argues for his own suggestion: one point
Team member D: agrees to go along with the others: no points

Final tabulation for turn: A = 2 points
B = 1 point
C = 1 point
D = 0 points

If no one makes arguments or supports the initial suggestion, then just one point is given to the initial suggester. If there is no suggestion or argument because everyone agrees to follow the path determined by the previous turn, then no one receives a point for that turn.

Examples of reinforcing remarks and arguments:

"Yea, that sure is a good way."

"I think we would have the best chance that way."

"It would be a good way because we might get an extra turn."

June 16, 1972

TO: Tutor-Instructors

RE: June 19-29

MEMO ON REINFORCEMENT

There are three kinds of behaviors you should watch for during the training period. These are:

1. Self-confident behavior
2. Speaking up
3. Explaining ideas

The basic rule for reinforcement of these behaviors is to tell the student how well he is doing with respect to these three behaviors.

For example: "You were really so self-confident just now"
"Look at how you are speaking up"
"You explained that idea perfectly"

Only use this reinforcement procedure when the student actually exhibits these behaviors. Otherwise he will feel it is all phony. Don't be afraid to spell it right out although it may feel a little awkward. In general, these ideas can be introduced to your student in connection with his role as a teacher. Tell him that these are the qualities which make a good teacher. Remember to reinforce while he is practicing the teaching role.

Very important - During the time when your student is actually teaching a white student (starting June 26), find some good moments to comment on these behaviors so that both your student-teacher and his student can hear. You will have two (2) of your student-teachers to worry about. During the week, find time to reinforce each of the three behaviors at least once for each of the student-teachers during the week. In addition, tell them when they are being "good teachers."

Post Game Questionnaire

(1-3) Name _____ I.D. _____

(4) T _____(1) LC _____(2) (For office use only)

(5-6) Age _____

(7) Grade in September _____

(8) Racial Identity: Black _____(1) White _____(2) Other _____(3)

(9) Sex: Girl _____(1) Boy _____(2)

I. About what you have learned at the center.

A. The next questions are about the tasks you have learned so far this summer. First, we want to know whether boys and girls your age like or dislike these things. Please check the box that best says how you feel about each thing you have learned.

	Liked it Very much	Liked it Some	Disliked it some	Disliked it very much
(10) Men	<u>(3)</u>	<u>(2)</u>	<u>(1)</u>	<u>(0)</u>
(11) Radio Transmitter	<u>(3)</u>	<u>(2)</u>	<u>(1)</u>	<u>(0)</u>
(12) Malaysian	<u>(3)</u>	<u>(2)</u>	<u>(1)</u>	<u>(0)</u>
(13) Math	<u>(3)</u>	<u>(2)</u>	<u>(1)</u>	<u>(0)</u>

B. Next, we would like to know how you feel about the teaching and learning you have experienced so far this summer.

- (14) How do you feel about the teaching and learning of Mem, the Radio Transmitter, Malaysian and Math?

Liked it
very much

Liked it
some

Disliked it
some

Disliked it
very much

(3)

(2)

(1)

(0)

- (15) Would you like to have this type of teaching and learning in the regular school? (Check one)

____(1) Yes, I would like to have this type of teaching and learning in regular school.

____(2) No, I would not like to have this type of teaching and learning in regular school.

- (16) Which task did you like best? (Check one)

Mem _____(1)

Radio Transmitter _____(2)

Malaysian _____(3)

Math _____(4)

- (17) Which task did you like least?

Mem _____(1)

Radio Transmitter _____(2)

Malaysian _____(3)

Math _____(4)

II. About your feelings

A. The next questions are about how boys and girls your age feel. There are no right or wrong answers. For example:
Check the answer which best says how you feel.

"I like chocolate milk."

____ Agree very much
(4)

____ Agree
(3)

____ Don't know
(2)

____ Disagree
(1)

____ Disagree very much
(0)

- (18) Making plans only makes you unhappy, because the plans are hard to carry through.

 Agree very much
(4)

 Agree
(3)

 Don't know
(2)

 Disagree
(1)

 Disagree very much
(0)

- (19) With things as they are today, a smart person ought to think about today, without worrying about what is going to happen tomorrow.

 Agree very much
(4)

 Agree
(3)

 Don't know
(2)

 Disagree
(1)

 Disagree very much
(0)

- (20) To be happy, you shouldn't want too much; you should just be happy with whatever you have.

 Agree very much
(4)

 Agree
(3)

 Don't know
(2)

 Disagree
(1)

 Disagree very much
(0)

- (21) It doesn't make much difference if the people elect one candidate or another, for nothing will be different.

 Agree very much
(4)

 Agree
(3)

 Don't know
(2)

 Disagree
(1)

 Disagree very much
(0)

- (22) The only way I'll get a job when I grow up is by finding someone who will help me.

 Agree very much
(4)

 Agree
(3)

 Don't know
(2)

 Disagree
(1)

 Disagree very much
(0)

(23) I could never get anyone to give me a job

 Agree very much
(4)

 Agree
(3)

 Don't know
(2)

 Disagree
(1)

 Disagree very much
(0)

(24) I could never get my boss to pay me more. I will just have to take what the boss thinks is right.

 Agree very much
(4)

 Agree
(3)

 Don't know
(2)

 Disagree
(1)

 Disagree very much
(0)

(25) Every time I try to get ahead, something or somebody stops me.

 Agree
(2)

 Not sure
(1)

 Disagree
(0)

(26) Good luck is more important than hard work for success.

 Agree
(2)

 Not sure
(1)

 Disagree
(0)

(27) People like me don't have much of a chance to be successful in life.

 Agree
(2)

 Not sure
(1)

 Disagree
(0)

(28) (0) A. I have often found that what is going to happen will happen.

OR

(1) B. Trusting to fate has never turned out as well for me as making a decision to take a definite course of action.

(29) (1) A. What happens to me is my own doing.

OR

(0) B. Sometimes I feel that I don't have enough control over the direction my life is taking.

(30) (1) A. When I make plans, I am almost certain that I can make them work.

OR

(0) B. It is not always wise to plan too far ahead because many things turn out to be a matter of good or bad fortune anyhow.

(31) (1) A. In my case, getting what I want has little or nothing to do with luck.

OR

(0) B. Many times we might just as well decide what to do by flipping a coin.

(32) (0) A. Many times I feel that I have little influence over the things that happen to me.

OR

(0) B. It is impossible for me to believe that chance or luck play an important role in my life.

B. The following section has pairs of statements about how people feel. Please choose the statement which best says how you feel. Check A or B for each pair of statements.

For example:

(1) A. ✓ I like chocolate milk.

OR

(0) B. I don't like chocolate milk.

POST GAME QUESTIONNAIRE

Name _____

for office use only

ID# _____

(24-25) Group number _____

(26) Seating position _____

(27) Was it important for you to win Kill the Bull?

Would you say it was: (Check one)

Very Important	Important	Somewhat Important	Somewhat Unimportant	Unimportant	Very Unimportant
(1)	(2)	(3)	(4)	(5)	(6)

(28) For girls only:
Do you think other girls
would like to play this game?

Yes (1) Not Sure (2) No (3)

(28) For boys only:
Do you think other boys
would like to play this game?

Yes (1) Not Sure (2) No (3)

(29) Who do you think would like this game more, boys or girls? (check one)

____ (1) Boys would like Kill the Bull more than girls.

____ (2) Girls would like Kill the Bull more than boys.

____ (3) Both boys and girls would like Kill the Bull the same amount.

Name _____

PGQ. p. 2 _____

Here is a picture of where each of you sat while playing the game.

_____ 2 3 _____

_____ 1

4 _____

- (30) Who stood out most as a leader
in the game?

Name _____

for office use only				
ID#	_____	1	2	3 4

- (31) Who was second in leadership?

Name _____

for office use only				
ID#	_____	1	2	3 4

- (32) Who was third in leadership?

Name _____

for office use only				
ID#	_____	1	2	3 4

- (33) Who was fourth in leadership?

Name _____

for office use only				
ID#	_____	1	2	3 4

FRIDAY QUESTIONNAIRE

(3-9) Name _____
Age _____

for office use only

ID# _____

(15-17) Name 3 students in your room this summer who are most able to get others to do things.

1. _____
2. _____
3. _____

for office use only

(15) ID# _____ 1 2 3 4

(16) ID# _____ 1 2 3 4

(17) ID# _____ 1 2 3 4

(18-20) If you were going on a picnic and you could choose three friends from this classroom to go with you, who would you take?

1. _____
2. _____
3. _____

for office use only

(18) ID# _____ 1 2 3 4

(19) ID# _____ 1 2 3 4

(20) ID# _____ 1 2 3 4

(21-23) Suppose you were planning another activity like the "5 Foot Square" expedition, which three members of your class would you like to have in your group?

1. _____
2. _____
3. _____

for office use only

(21) ID# _____ 1 2 3 4

(22) ID# _____ 1 2 3 4

(23) ID# _____ 1 2 3 4

App. A-22
INTERVIEW

for office use only

Name _____

ID# _____

A. This school was not like regular school. There were man differences. We would like to know how you would feel about having some of these things in regular school.

	Like in regular school	Don't care	Not like in regular school
How would you like.			
(34) Working in small groups?	_____ (1)	_____ (2)	_____ (3)
(35) Having so many teachers in the room?	_____ (1)	_____ (2)	_____ (3)
(36) Having (only boys/only girls) in your class?	_____ (1)	_____ (2)	_____ (3)
(37) Learning more about scientific observation?	_____ (1)	_____ (2)	_____ (3)
(38) Making another film?	_____ (1)	_____ (2)	_____ (3)
(39) Having about the same number of Black & White kids in your classroom?	_____ (1)	_____ (2)	_____ (3)
(40) Did you have a tutor your own age for the first two weeks?		Yes _____ (1)	No _____ (2)
(41) (If answer to last question is Yes) How would you like to have teachers your own age in regular school?	Like _____ (1)	Don't care _____ (2)	Not like _____ (3)

Date: _____

Interviewer: _____

Name: _____

Interview for Black Students--Tutorial Center

NOTE TO INTERVIEWER: Procedure will be different for children who were already interviewed last week. If they were already interviewed, use first two questions as a warm-up and skip the general questions about how they liked the summer school thus far. Start with questions on their reactions to the different tasks. (Question No. 6)

INTRODUCTION (for those being interviewed the first time)

I'm going to ask you a few questions. I want you to know that there are no right answers to these questions. It would help us to know exactly how you feel. If there were some things about the summer school that you liked--that's fine--let's hear about them. If there were things you didn't like--we want to hear about those things too.

1. How did you like Kill the Bull?
2. How did your team do?
3. What do you think of the Summer School up to this point? Anything else?
4. What did you like best last week? Why?
5. What didn't you like? Why?
6. Let's talk a little about the different tasks you learned. Tell me how you felt about each of them.
7. Were there any tasks where you were afraid that you wouldn't be able to learn the materials? Which ones? Were there any tasks where you felt you needed more time? Which ones?
8. Were there any tasks where you were afraid that you wouldn't be able to teach the materials? Which ones?
9. How did the teaching go? What was the first day like? Was it different after that?
10. Can you tell me the names of your students? How well did each of them learn?
11. Was it important to you whether or not your student learned?

Interview for Black Students--Tutorial Center

2.

12. Remember the way your college instructor taught you the tasks the first week---Could the teachers in your regular school have taught you as well as that?
13. Did you get to know some new students who were in your room last week--students you had never met before?
14. Can you tell me their names and what you have learned about them? (May include their students).
15. Did you find any of your old friends in your classroom? IF YES--what are their names?
16. One last question--How many other brothers and sisters do you have living at home with you?

Date: _____

Interviewer: _____

Name of Student _____

Interview for White Students and Blacks Students---Learning Center

Introduction: I'm going to ask you a few questions. I want you to know that there are no right answers to these questions. It would help us to know exactly how you feel. If there were some things about the summer school that you liked--fine--let's hear about them. If there were things you didn't like--we want to hear about those things too.

1. How did you like Kill the Bull?
2. How well did your team do?
3. What do you think of the Summer School up to this point? Anything else?
4. What did you like best last week? Why?
5. What didn't you like? Why?
6. Let's talk a little about the different tasks you learned. Tell me how you felt about each of them.
7. When you were learning these tasks, did you feel that it was important to learn them? Which ones?
8. Were there any tasks where you were afraid that you wouldn't be able to learn the materials? Which ones? IF THAT HAPPENED--Tell me how you felt and what you did about it?
9. Did you get to know some new students who were in your room last week--students you had never met before?
10. Can you tell me their names and what you have learned about them?
11. Did you find any of your old friends in your classroom? IF YES--What are their names?
12. One last question--How many other brothers and d sisters do you have living at home with you?

Interview for White Students---Tutorial Center

Introduction: I'm going to ask you a few questions. I want you to know that there are no right answers to these questions. It would help us to know exactly how you feel. If there were things about the summer school that you liked---fine--let's hear about them. If there were things you didn't like--we want to hear about those things too.

App. A-27

Date: _____

Interviewer : _____

Name of Student: _____

Interview for White Students--Tutorial Center

1. How did you like Kill the Bull?
2. How well did your team do?
3. What do you think of the Summer School up to this point Anything else?
4. What did you like best last week? Why?
5. What didn't you like? Why?
6. What did you think about having a teacher who was your own age? Anything else?
7. What were the names of your teachers?
8. Tell me about each one. What was it like to be their student? How did it go on the first day? Was it difficult after that?
9. Let's talk a little about the different tasks you learned? Tell me how you felt about each of them.
10. When you were learning these tasks, did you feel that it was important to learn them? Which ones?
11. Would you like to teach any of these tasks to your friends? Which ones?
12. Were there any tasks where you were afraid that you wouldn't be able to learn the materials? Which ones? IF THAT HAPPENED-- Tell me how you felt and what you did about it?
13. Did you feel the teachers your own age wanted you to learn?
14. Did any of the teachers your own age ever get angry with you? If so, tell me what happened?
15. Would you like to work with any of the college student instructors again this summer? Which ones?
16. Did you get to know some new students who were in your room last week--student you had never met before?

17. Can you tell me their names and what you have learned about them?
(Answers may include student-teachers)
18. Did you find any of your old friends in your classroom? IF YES--
What are their names?
19. One last question--How many other brothers and sisters do you have
living at home with you?

CENTER FOR INTERRACIAL COOPERATION

Week of _____

Teaching Team Checklist

Team Member _____

Curriculum _____

I. Critical Incidents - Describe:

- (a) Who is involved
 - (b) What occurred
 - (c) What was the reaction of other students and teachers
 - (d) What was resolution
 - (e) Any verbatim remarks you remember
- A. Critical incident involving interracial cooperation
 - 1. Working together, helping one another, saying supportive things to one another.
 - 2. Refusal to share equipment (film curriculum).
 - 3. Incidents involving hostility and/or lack of understanding.
 - B. Playground, arrival - dismissal time incidents.
 - C. Incidents involving student leadership
 - 1. Describe some behaviors you regard as leadership behavior.
 - 2. Incident on one person dominating small work group by doing all the talking and making most of the decisions.

II. Participation

- A. Which children were almost completely silent this week.
- B. Any children who refused to participate? Who?

III. The Curricula

- A. Particular problems with lesson plans and curriculum objectives this week.
- B. Suggestions for improvement. Things you did to try to solve the problems which came up.
- C. Film Curriculum Only: Techniques which we have used in film curricula which have worked out well to encourage the students to be more self-critical. What helped, or did not help, with reasonable division of labor?

What helped teach the concept of the editing process, e.g., selectivity.

IV. Turn in interracial newspaper - one a week. File with Mrs. Gentry anything class has written or created.

STUDENT PARTICIPATION

- (42) observation teaching team ____
 (43) film teaching team ____
 (44) observer (observation curriculum) ____
 (45) observer (film curriculum) ____

Please evaluate each of these students on the degree to which they
 participated in the _____ curriculum.

Room _____		Was one of the highest participants	Participated more than most other students	Participated as much as most other students	Participated less than most other students	Did not participate
ID#	Name	(1)	(2)	(3)	(4)	(5)
075						
025						
076						
077						
078						
026						
027						
028						
079						
029						
082						
080						
030						
031						
039						
033						
081						

APPENDIX B

Evaluation and Revision of the Observation Curriculum

The purpose of the Observation Curriculum was primarily related to process rather than content. Tasks were designed to insure interdependence and to promote cooperation. There was no specific evaluation of content learned. However, some of the tasks were less successful than others in that teachers and students complained of undue repetitiveness and boredom. Some of the children's remarks were discussed in Chapter IX.

The major means of evaluating the curriculum in order to revise it for future use in cooperative classrooms was by means of a lengthy discussion held with all the teachers at the end of the summer school. The discussion, led by one of the curriculum developers, Ms. Mary Nui, was tape recorded.

One criticism was that the title was not felt to be of inherent interest to elementary students. To use the term "scientific observation" was misleading because teachers expected a curriculum involving the natural sciences, which is inherently interesting to children of this age.

As mentioned in the chapter on interaction in the classroom, teachers felt that the concept of cooperation was not adequately articulated and reinforced throughout the curriculum. There was a lot of "talk" about it in the classroom, but not much understanding observable in the children's behavior.

If the children were to gain and retain an understanding of the specific components of observation embodied in the various tasks and exercises, the components would have to be reinforced more frequently and their interconnections spelled out.

The teachers' most common observation was that the more active tasks were far more effective and popular than were the more passive tasks demanding less involvement from the children. A good example of the extremely active task was the treasure hunt where the children created maps, guiding other groups of students to hidden treasure.

They also used maps to find treasure for themselves. An example of a task which was overly passive was the slide show in the first week, when the children learned about sequencing of cues in understanding how perceptual judgements are made. Sitting and looking at slides did not adequately hold the children's interest.

A second general principle of the criticism was that the curriculum was weak where it was too distant from and irrelevant to the children's lives. For example, some teachers felt that in weeks three and four, spent on archeology, the framework was too abstract and distant for some of the children. In addition, more of the middle class children had prior acquaintance with the work of the anthropologist than the working class children. In contrast the activities in the unit on symbolism such as the rebus, decoding a message, the treasure hunt and map reading seemed much more alive to the children. These activities had been pretested and refined the most, because of considerable difficulties with student understanding and interest in the pretests.

Teachers suggested that the curriculum supply more short self-contained activities from which students and teachers could choose. Their rationale was that some activities might be of more or less interest to certain students.

It had been our original intention to develop a "teacher-proof" curriculum in order to generate certain kinds of small group interaction which could be scored, and to insure comparability across classrooms. However, as one begins to think about the curriculum in the context of long-term relationships with teams of teachers, more opportunity for professional decision-making by the teachers is desirable.

Curriculum Revisions

During the winter and spring of 1974, following the summer school, Dr. Joan Bloom and Ms. Mary Nur revised certain units of the curriculum and tested out the revisions in two seventh grade classes. One group was a "low ability" class with blacks, Chicanos and a few Anglos. The other had the same ethnic composition, but with a larger proportion of Anglos.

The changes in activities were based on: (1) a developed framework for concepts of observation which would allow us to see how well each activity fitted its purpose in the framework; and (2) the principles of cooperation. The roles of the teacher and teacher aides were clarified by writing up clear expectations for what they were to do in connection with each task. There was also an attempt to heighten the participation of each child by revising the directions for some of the tasks.

The first two weeks and half of the third week were thoroughly revised and tested. General guidelines were prepared for future revision of the archeology unit in the second two weeks.

On the first day the NASA exercise was introduced to demonstrate principles of cooperation. In this exercise children were asked to rank order a list of objects in terms of their importance and utility in the event of a crash landing on the moon in a rocket ship. First they ordered the list individually and then as part of a group, in order to demonstrate the superiority of group effort over individual effort for this kind of task. The classroom test was generally quite successful. Four guiding principles of cooperation were outlined to teachers as follows: (1) Each member contributes toward the goal; (2) Students must perceive the task as requiring cooperation; (3) Each member contributes unique skills; (4) Group effort provides higher quality results. The activities incorporated these principles, and the teachers were to reinforce them when appropriate.

In order to change activities that were felt to be too passive two activities which were passive and somewhat redundant were combined and the total experience was shortened. The workbook activity, which had been a passive and programmed activity became a creative task with the children making their own workbooks by cutting up magazines. The workbooks functioned to demonstrate the concept of ordering cues in making perceptual judgements.

In general the test of the revision of Week 1 was successful. Concepts were more interestingly presented. When we introduced the Workbook Activity, several students said, "Oh, that's like the slides we saw," which indicated that our concepts were being understood and internalized.

In the first day of Week 2, the number of activities was shortened from six to three because several tasks such as Map v Reading and Symbol in Context were repetitions of the substance conveyed by other activities. "Broken Squares" was introduced in the second week instead of the first week to reinforce the concept of cooperation. This task was developed by Baveleas, and has since been revised into a simulation game. There are a series of geometric shapes which can be made up into five squares; the squares can only be completed if the children work together by exchanging pieces with each other. This cooperation acted to reinforce the learning from the NASA exercises of the first week. It heightens the student's awareness of cooperation within group vs. between group competition.

A new terminal activity was invented for the third and fourth days of the second week, more lively and structured than the one used in the summer school. The children were to demonstrate their understanding of symbolic seeing by completing an unfinished story with a choice of symbolic media. The sample story given to the children was not as helpful as it might have been, and it has been subsequently revised.

The major proposed revision of the archeology exercises is a clarification of the steps the learner has to take in order to make inferences from artifactual cues. Learning opportunities were structured for each of these steps. The detail of this revision remains to be tested.

Some consideration must be given to the training of teachers in the curriculum. It should include not only the teaching of content but also the relationship between teacher, aide and student and the meaning of cooperation as it applies to classroom interaction. At this writing it is not clear whether this is best done in a manual or with a few days in-service training.

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